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Shakespeare St., Richmond, E.I.
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MSS. and Magazine Correspondence should be forwarded to the Editor, "Amateur Radio," Law Court Chambers, 191 Queen St., Melbourne, C.I., on or before the 8th of each month.

Subscription rate in Australia is 12/- per annum, in advance (post paid) and A15/- in all other countries.

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VK3WI: Sundays, 1100 hours EST, 7146 Kc. and 2095 hours EST 50 and 144 Mc. No frequency checks available from VK3WI. Intrastrate working frequency, 7125 Kc.

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VK6WI: Sundays, 0930 hours WAST, on 7146 Kc. No frequency checks available.

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Published by the Wireless Institute of Australia.

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EDITORIAL



THE POWER OF A MEETING

Such are the ambiguities of English grammar that many words can have a multiplicity of meanings. The word "meeting" is a typical example, and yet, in a strange way, the dictionary explanations of this quite common word can all mean the same thing when applied to the meetings of our Institute.

A meeting of the Institute gives that great opportunity to "come face to face with" other people whom we have probably heard on the air time and time again; the chance to "reach out and touch or unite" with our fellow Amateurs; to "come together," "to assemble," "to be united" with people who have the same interests at heart; "to meet," sometimes for the first time, those of our fraternity we have always wanted to meet.

But in an Institute such as ours, this is not the only benefit we can derive from a "meeting"; it also affords a powerful liaison between the Society and its membership; it gives the membership the opportunity to let the Society know its individual problems, the opportunity to discuss individual problems between each other. It gives the Society the opportunity to do something about these problems.

A meeting does more than all the letter-writing in the world could do. It gives the necessary power to the membership and the Institute to discuss and resolve major problems that confront Amateur Radio.

The W.I.A. has major problems facing it all over the Commonwealth today, make no mistake about that! Major problems that must be faced up to by the membership and resolved in a manner that will be satisfactory to all—television interference, foreign encroachment into frequency channels expressly allocated to the Amateur Service, National and Civil Defence Emergency Networks and their co-ordination, W.I.A. representation on behalf of Region III, at the next International Telecommunications Convention—all these things must be faced up to now, not when the crisis is reached!

By meeting each other and discussing these things amongst other interesting Amateur activities, by taking an interest in attending monthly meetings and other organised gatherings of Amateurs, by taking an interest in the administrative organisation behind your meeting and the Institute in general and regularly attending its functions, by giving a little of your spare time to the problems confronting the Institute—by all these things your hobby can endure for you and the generations of Amateurs to follow on in the years that yet lie ahead.

Will you attend your meetings and do your bit to protect the greatest hobby you will ever enjoy?

FEDERAL EXECUTIVE.

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TRANSMITTER CONTROL

BY R. M. WINCH,* VK2OA

Recently, the author took stock of his transmitter layout and decided that an overall plan was necessary.

To enable operation on any of the bands from 3.5 to 144 Mc., it is necessary to have at least three transmitters—one for each band would be the ideal, of course. However, operation on more than one band at a time was not envisaged so it was considered that it would be an expensive luxury to have separate power supplies, modulators, keying circuits, etc. Hence, it was considered feasible to have one unit which would supply all power and contain all controls.

CONTROL UNIT

The complete unit is built on one chassis which is placed on the operating desk alongside the receiver. On the front panel are mounted the control switches, gain controls, tone oscillator, relay, control, microphone and key sockets and the modulation indicator.

At the rear of the chassis are six octal sockets, wired in parallel, which act as outlets to the various transmitters.

Each transmitter has its own filament transformer and aerial change-over relay. In each transmitter is incorporated a switch in the 240-volt AC supply to the filament transformer and a 5-pole

fraternity. They are cheap, readily available, neat and conservatively rated at 240-volts, 5-amperes in either SPST or SPDT. They come in several brands, both brown and white and the escutcheons are easily engraved.

The following circuits are controlled by these switches: Filament supply, exciter HT, final HT, modulator, phone send-receive, oscillator on for VFO setting. The first four switches are wired as shown in Fig. 1. The function of the other two will be described later.

POWER SUPPLIES

There are three power supplies, identical except for the type of rectifier valve. The transformers are 385-volt aside, 150 Ma. broadcast type. The filter circuits are the usual 8 μ F-choke-8 μ F. type using ordinary 5 μ F, 525-volt electrolytics. Each supply has a 200 Ma. dial light wired in the centre-tap lead to cope with accidental shorts.

By using three different types of rectifiers, different voltages are obtained from each supply. With a 5Y3 the exciter pack delivers 320 volts. The PA supply, with a 5R4GY, gives 400 volts, and by using a 5V4 in the modulator supply 450 volts is obtained.

The complete diagram of the exciter power supply and the control circuits is given in Fig. 2. T1, V1, L1, C1 and C2 are the power supply delivering, under load, approximately 350 volts across the points A and D. R1, R2 and R3 form a voltage divider with the point B at 150 volts and the point C at 10 volts positive to the point D. Terminal 1 is connected to the exciter HT terminal in the transmitter, terminal 2 to the screens of the keyed stages, 3 is the oscillator HT, 4 is the common earth, and term-

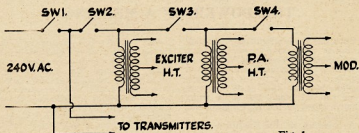


Fig. 1.

This, of course, would impose limits on the design of the various transmitters. After some thought it was decided that this was not as great an obstacle as it first appeared, so it was decided to go ahead and work out a design for such a unit.

The first step in designing was to draw up a set of specifications. Consideration of the contents of the junk-box, some counting of the available bawbees and past operating experience dictated that the design should conform to the following—

REQUIREMENTS

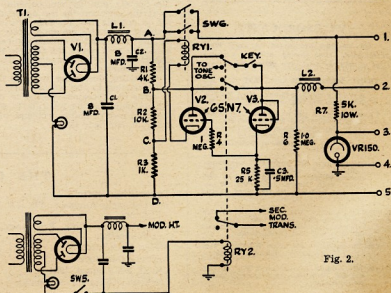
- A maximum power of 50 watts under modulated conditions.
- A HT supply of 400 volts for the final, 300 volts for the exciter, stabilised 150 volts for the oscillator, and screen keying at 150 volts.
- A minimum of operating controls, i.e. as near automatic operation as possible.
- Simple and quick change from one transmitter to another.
- Provision for A2 operation.
- Standardisation of components.
- A constant check on percentage of modulation independent of which transmitter is in use.

A preliminary design was worked out and a unit built up which, after some experimenting, finally worked satisfactorily. As several novel features have been included, it is thought that a brief description of the complete unit plus a detailed description of several of the circuits would be of interest.

* 38 Boundary Street, Parramatta, N.S.W.

switch to break the HT circuits. This latter switch takes various forms in the different transmitters. For instance, in the 40-metre transmitter it is a straight 5-pole on-off switch, but in the 2-metre transmitter it is combined with the crystal switch. In all cases ordinary wafer switches have proved adequate for the power involved.

The control switches on the front panel are ordinary domestic miniature architrave switches. These switches are worthy of attention by the Amateur



inal 5 goes to the coil of the aerial change-over relay, the other side of which is connected to earth.

C.W. Now consider what happens with the key up. The grid of V2 is connected to the negative side of the supply via R4 and R5. The cathode connects to point C which is 10 volts positive. This is sufficient to cut-off V2, consequently the valve draws no plate current and Ry1 remains open. When the key is closed the 150 volts from point B is applied to the anode of the diode-connected V3 which becomes conductive and charges C3 to nearly 150 volts.

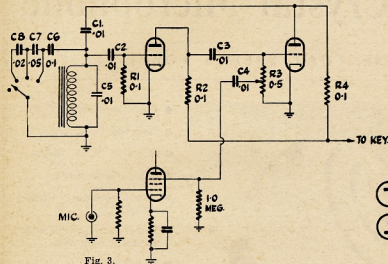


Fig. 3.

Since the grid of V2 is connected to the cathode of V3, it will also go to 150 volts positive—or at least it would if R4 were not in circuit. As soon as the grid of V2 has gone positive with respect to its own cathode, it commences to draw current. R4 keeps this grid current within reasonable limits, but allows the grid to remain at a slight positive potential. V2 now conducts and the resultant plate current causes Ry1 to close, supplying HT to the exciter and via R7 and the VR150 to the oscillator. 150 volts is also supplied from the key to the screens of the keyed stages.

The total HT current of the exciter and the VR150 is flowing through the coil of the aerial change-over relay so it too operates and the transmitter emits a signal.

When the key is lifted, the 150 volts is removed so the transmitter stops transmitting and V3 stops conducting. However, C3 does not instantly discharge due to the high value of R5. This means that the voltage across C3 falls at a comparatively slow rate. When it has reached a low enough point, V2 stops conducting and Ry1 opens, thus removing voltage from the oscillator and allowing the aerial change-over relay to re-connect the aerial to the receiver. If, however, the key is closed again before the discharge of C3 has reached this point, C3 recharges to the full voltage and the delay commences all over again.

Thus it can be seen that Ry1 closes instantly with the first closing of the key, but opens only if the key is left open for a definite time, this time depending on the values of C3 and R5. With the values given, Ry1 just opens between words at normal keying speeds.

Ry1 needs to be a fast closing relay with a bobbin that will operate on a couple of milliamps. If extra contacts are available, these may be used to silence the receiver. Sw6 is a switch mounted on the front panel of the unit and is used to set the VFO.

Let us have another look at the keying circuit. Very few tubes will key

it to close. The three contacts on Ry2 then perform the following functions: Closes the keying circuit, changes over the key circuit so that it now supplies HT to the tone oscillator, and removes the short across the secondary of the modulation transformer.

SWITCHING The full switching procedure is: Make Sw1 and Sw2, close the filament switches on the transmitters which it is anticipated will be used, close the HT switch on the transmitter required. When the filaments have warmed up, close Sw3. The transmitter is now ready for c.w. operation and merely requires manipulation of the key. For phone operation Sw4 is made at the same time as Sw3. Sw5 is then the send-receive switch.

Note.—When Sw5 is made, the key is automatically connected to the tone oscillator, so keep clear of it when operating on frequencies below 30 Mc. To prevent accidental transmission of the wrong type of emission on these bands, the author turns the tone oscillator gain to zero.

With Sw1-4 made, either c.w. or phone transmissions can be made without any further changing over. Hitting the key gives c.w., making Sw5 and speaking gives phone, and making Sw5 and hitting the key gives m.c.w.

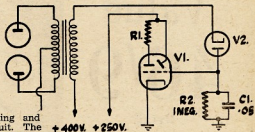


Fig. 4.

PHONE The tone oscillator circuit is shown in Fig. 3. A 6SN7 is used as a Franklin oscillator and the output is taken from the grid-leak of the second half and fed to the suppressor of the 6SJ7 which is the first stage of the modulator. (The remainder of the modulator is a 6N7 phase inverter driving a pair of 6L6s in Class AB1.) The coil for the tone oscillator is the primary of an ordinary speaker transformer.

MODULATION CHECKER

Fig. 4 is the circuit of the modulation checker. V2 may be any type of tube which will stand the HT voltage. The author uses a 6V6 with the plate, screen and grid tied together. A separate filament winding, which is not earthed, must be used to avoid exceeding the rated heater-cathode voltage of the valve. V1 is an ordinary "magic eye."

The circuit operates in the following manner. With no modulation, the cathode of V2 is 400 volts positive with respect to earth. With modulation, this voltage swings up and down about the mean voltage of 400. 100% modulation will cause it to swing up to 800 volts and down to zero. However, with any percentage of modulation below 100, the cathode is always positive with respect

(Continued on Page 7)

satisfactorily merely by opening and closing the screen supply circuit. The keying will have a poor break characteristic and considerable backwave. The cure is to apply a small negative bias to the screen when the key is open. This makes the keying clean and positive. R6 supplies this negative bias. With Ry1 closed and the key open, the power supply is feeding the oscillator and the VR150. This current is flowing through the bobbin of the aerial relay, i.e. from terminal 5 to terminal 4, and causes terminal 5 to assume a negative potential with respect to earth. This is fed to the screens via R6 and provides the negative cut-off bias.

L2 is a keying filter to get rid of the clicks. A point to watch here is that L2 works on both the make and break as the screen circuit is still closed with the key open so that if a large screen bypass condenser is used, the keying will have unduly long tails. Another point is that L2 is working into a higher impedance circuit than would be encountered with cathode keying and needs to be of a higher inductance value. A small filter choke does a good job in the author's transmitter.

PHONE For phone operation, Ry2 does all the switching. Ry2 is a disposals relay with a 28-volt bobbin of approximately 250 ohms resistance. Sw5 is the send-receive switch on the front panel. When Sw5 is closed the full HT current of the modulator flows through the bobbin of Ry2 and causes

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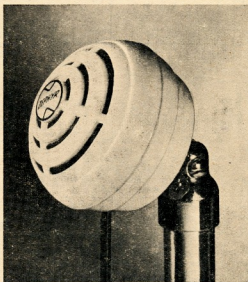
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PART TWO

BY TOM ATHEY,* A.I.R.E. (Aust.)

SECTION ONE (Continued)

I.F. Channel

The channelist, as I term the i.f. channel, is a normal conventional double converted job, using 1600 Kc. and 100 Kc. Looking at the schematic, you see that the input from the converter is fed to the standard set-up of short wave aerial and oscillator coils, tuned with a two-gang condenser. This two gang condenser is one of the midget b.c. type of approximately 450 pF. No dial is needed as the gang is set to the acceptance frequency from the converter, then screw-driver locked. This way the input frequency is fixed to the output frequency of the converter, and should require no further adjustment, once set.

The use of ordinary s.w. coils will present no difficulty in obtaining parts, hence their use.

Tune the converted frequency to the i.f. frequency of 1600 Kc. and feed it through the first i.f. amplifier valve in the normal way. The plate output from the i.f. amplifier is then fed to a second converter having a frequency difference of 100 Kc.

Again, as crystals of either 1500 or 1700 Kc. may be hard to obtain, an ordinary b.c. oscillator coil can be used in the oscillator portion. Use a slugged coil and with a fixed padder across the coil, it is possible to slug the coil to the required frequency difference of 100 Kc. As is well known, the b.c. coils

hold their frequency without drifting to a remarkable degree of accuracy.

The new i.f. frequency of 100 Kc. is again fed to a second i.f. amplifier, by this time use a valve having diodes in its make-up, such as a 6N8, or 6G8G. These diodes are used for the pick-up of the voltage for the a.v.c., more of which will be spoken about later. The new 100 Kc. i.f. frequency is now fed to the twin diode valve (either a 6AL5 or a 6H6).

The first diode acts as a demodulator for feeding audio to the driver stage. The second diode acts as a series noise limiter, controlled by an on-off switch. In either case, the audio output is fed to a voltage amplifier. This valve can be either a triode or a pentode, but I have always found that a triode will give you plenty of gain if it is wired in as shown in the schematic.

For the sake of economy use a 6SH7 here. There are plenty of these tubes around (usually for about 5/- each). Wire it as a triode. The only difference to the standard circuit is that the cathode is earthed instead of having cathode bias. Examination of the driver portion of the circuit shows how the valve is connected. I use this system always and find it very satisfactory.

The driver stage is then fed to the output valve. It is not necessary to use a large output here because it is unnecessary. So long as the volume is sufficient to give reasonable output to the speaker system, there is no need to worry the neighbours with the results of your prowess in hearing a VK1 or

the other side of the world. A 6K6 valve is all you need (or a 6M5). If you are content with low output, use a 6AM5. This valve will deliver about $\frac{1}{2}$ of a watt of audio and at the same time keep your final power valve drain down to 19 Ma. (instead of the normal 50 Ma.)

Regarding the speaker system, I have shown two. These are of the three inch type. This is just a bit of flashness to balance the panel and need not be followed. One 5" speaker will do quite as well.

The b.f.o. valve is half of a 6SN7 or a similar type (12AU7) and beats against the 1600 Kc. i.f. input to the second converter. A small condenser is used to vary the note and to allow you to zero-beat the b.f.o.

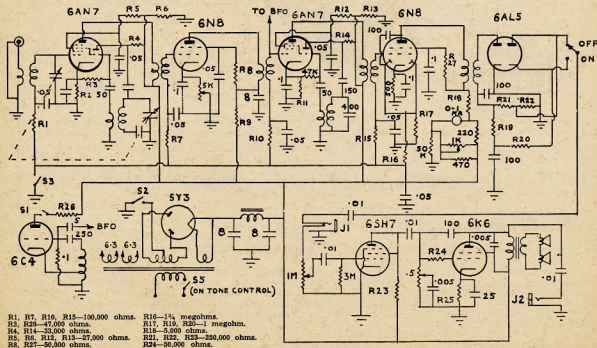
The other half is used for the "Guess Meter"—I term it this way as in most cases it is only guess work. The calibration of such a meter is left to your own individual requirements.

A FEW POINTS ON CONSTRUCTION

From the drawings of the chassis (see August issue) you will see how the recess for the plug-in converters is made. Cut out the recess from your chassis, making it neat and square. Make the opening a free fit, but do not allow it to become too free.

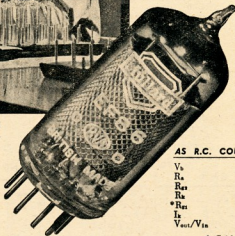
Align the pins accurately so that when the converter is slid in, the pins engage the sockets easily and tightly. Care must be exercised that you allow for the pins in the depth of the opening front to rear. A panel that does not fit snug

* Ex-Instructor Q'land Division W.I.A. Classes; 41 Mountford St., New Farm, Brisbane.





The inspection of Mullard picture tube gun assemblies.



SEEN but not HEARD

VOLTAGE AMPLIFYING PENTODE EF86

Low-noise pentode primarily intended for use in high-gain R.C. coupled A.F. voltage amplifier stages.

CHARACTERISTICS

V_a	6.3	V
I_a	0.2	A
C_{out}	5.5	μpF
C_{in}	4.0	μpF
C_{a-e}	0.025	μpF
V_a	250	V
V_{a1}	140	V
I_a	3	mA
I_{a1}	0.55	mA
V_{g1}	-2	V
V_{g2}	0	V
g_m	1.85	mA/V
r_a	2.5	M Ω
μ_{a-e}	38	

OPERATING CONDITIONS

AS R.C. COUPLED PENTODE A.F. AMPLIFIER

V_a	250	250	V
R_a	10.1	10.22	M Ω
R_{a1}	10.39	11.0	M Ω
R_a	11.0	12.2	k Ω
* R_{a1}	330	680	k Ω
I_a	2.05	0.95	mA
V_{a1}/V_{ia}	112	180	

* Grid resistor of following valve.

† Values $\pm 10\%$.

The Mullard EF86 is an all-glass, low noise valve, with the universally accepted single-ended 9-pin technique. The total generated noise expressed in terms of an input to the grid is less than 5 micro volts.

Incorporating the best features of the earlier low noise, low hum, low microphony types, the Mullard EF86, like the picture tube, is truly a valve that is seen but not heard.

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COLD CATHODE TUBES — MEASURING INSTRUMENTS — SCIENTIFIC APPARATUS — RADIO RECEIVERS — COMMUNICATIONS EQUIPMENT
ULTRASONIC GENERATORS — PERMANENT MAGNETS — MAGNETIC MATERIALS AND COMPONENTS, ETC.

MR343

and close to the main panel spoils the whole appearance of the job.

The positioning of the controls, shown on the channel panel is self-explanatory, and should not need any comment. The speaker panels are again just a bit of skirting, but if done in chrome would look "super."

When building the power pack, work out the number of milliamperes you want to handle the valve line-up, not forgetting the converters. Under normal requirements a transformer of about 100 Ma. of h.t. is ample, but again this depends on your own requirements. The filaments need about 4 amps. of current to be on the safe side, so I would suggest that your transformer be as follows:

One transformer: 100 to 120 Ma. h.t. 280-0-280 volts, two filament windings of 6.3v. at 3 amps. each, one filament winding of 5v. at 2 amps. One of this type would allow a safety margin and avoid a risk of burn-outs.

A.V.C.

A.V.C. is picked up from the diodes of the second i.f. amplifier and fed to all stages on the channelist. Provision is made by means of a switch to cut off the a.v.c. at will and allow you to run the set at maximum gain, when chasing those weak signals.

The size of the S meter is an optional matter. There is on the market a meter already calibrated for signal strengths. I'm not sure but I think it is supplied by The Master Meter Co. Enquiries from the trade houses in your town would clear up this point.

That's all chaps on the receiver. The rest is up to you. One thing, if you decide to build it up, I feel sure that the effort you put into it will be well worth while. It virtually is a 10 valve triple conversion super having high gain, good selectivity, and low noise ratio to signals.

BOOK REVIEW

Low Frequency Amplification

Low Frequency Amplification by Dr. N. A. J. Voorhoeve, pp.495. Published in the Philips' Technical Library series. Our copy by courtesy of Philips, of Holland.

This book contains a lot of interest to Amateurs, excepting, of course, the dyed-in-the-wool c.w. only types. It covers almost the whole of the audio field, not only amplification as the title would suggest, but all the auxiliaries like microphones, recordings, pick-ups, loud speakers, power supplies, components and measurements.

Now this is quite a lot to pack into one book. The author has done a good job in selecting what to put in and the result is about the right standard for the Amateur. It is not a designer's manual with page after page of mathematics nor is it a collection of circuit diagrams, but it steers a middle course in a very readable manner.

Like most European books, a number of unknown valve types are mentioned, but the characteristics of the more important ones are given. All the examples are taken from Philips products but the book is in no sense a trade catalogue or a sales pamphlet, but one which can be recommended.

—A.K.H.

Screen Modulation

Mr. J. A. Gazard, B.E., of 39 Glenhurther Street, Woodville, S.A., has raised a point regarding the article "A New Modulator for the Type 3," in August issue of "A.R." which was not mentioned in the original description. We print, therefore, his remarks on the subject, which applies to all systems of Screen Modulation.

With the arrangement shown, the screen of the 6L6 is at 250 volts without modulation, but under full modulation it will vary from 0 to +500v. The rise from 250 to 500 volts will not give a corresponding increase in r.f. amplitude and consequently the envelope of the output wave will be very distorted, having small positive and large negative peaks.

Goodman, in June, 1954, "QST," page 15, says re screen modulation—"If we make it (the operating voltage of the screen) the normal screen voltage for the tube used as an r.f. amplifier, we are going to swing it up to twice this voltage on peaks. Two things can happen. The tube can burn up because it is being overloaded, or the output can increase without hurting the tube, showing that we were not getting as much out in the first place as we could have got. The only way is to first find out what the tube can do as a straight r.f. amplifier and then cut the screen voltage back to about one half."

In the case of the Type 3, we are getting all we can out of the 6L6 and therefore it is just as necessary to drop the screen voltage back to about half using either the choke or the transformer for modulation.

— . . . —

Transmitter Control

(Continued from Page 3)

to the anode (earth) and no current flows through V2. If the modulation exceeds 100% the cathode swings through a voltage range greater than 400 in each direction.

In the upward direction, this will be greater than 800 volts, but in the downward direction, the cathode will assume a negative potential with respect to the anode as soon as the modulation exceeds 100%. It will then conduct and charge up C1, thus making the grid of V1 negative and causing the "eye" to close. By omitting C1 and using R2 only, the "eye" would close on over-modulation peaks, but the time of closure would be the same as the duration of the peak.

With the transients encountered in speech the flicking of the "eye" would be so fast as to be hard to see, but by using the C1-R2 combination the peaks are lengthened and are plainly visible even with the "eye" not in direct view.

A word of warning must be sounded about this system however. Its purpose is merely to indicate when the modulation exceeds 100% on the negative peaks. An oscilloscope should be used to adjust the transmitter so that the modulation is symmetrical and linear. After that the gain control should be set so that the "eye" closes on heavy words. This means that the modulation is exceeding 100% on peaks, but also ensures that the modulation is sufficient at all times.

AMATEUR CALL SIGNS

FOR MONTH OF JULY, 1954

ADDITIONS

- VK— New South Wales
 2WN—E. R. Woodman, 28 Victoria Ave., Mortdale.
 2ZS—W. J. Smith, 23 Sandringham St., Sans Souci.
 2AEO—B. D. Pronger, 3 Richmond St., Croydon.
 2AEB—C. P. Bennett, 19 Helen St., Westmead.
 2AVQ—R. R. McKew, Flat No. 1, 19 McKew Maroubra Bay.
 2AXW—C. F. N. Wade (Lt.-Col.), 4 Hope Ave., North Manly.
 2AYB—S. C. Burton, 32 Arcadia St., Penhurst.
 2ZAD—A. A. Drury, 43 Camp St., Griffith.
 2ZAP—E. Pearce, 19 Meacham Gardens, Narra-bundah, Canberra, A.C.T.
 Victoria
 3BY—O. Holst, 27 Bamba Rd., Caulfield, S.E.7.
 3VS—I. L. Griffin (Rev.), 2a Clifton Gr., Coburg, N.13.
 3AAC—W. R. Clifton, 9 Clarence St., Elsternwick.
 3ACD—R. A. Hipwell, Pier Street, Dromana.
 3ACT—M. R. Ray, 34 Newton St., Shepparton.
 3AXA—R. A. Watson, 82 Beach Rd., Portsea.
 3AYB—R. L. Brownhill, 7 Henry St., East Geelong.
 3ZAH—E. Haymes, 87 Holmes Rd., Moonee Ponds.
 Queensland
 4XB—G. J. Bean, 69 Beryl Cres., Holland Park, S.E.3.
 Western Australia
 6KO—R. K. Westbrook, 25 French Ave., Merredin.
 6QO—F. R. Gray, 107 Kensington St., East Perth.
 6ZI—B. D. Woods, C/o O.T.C. Wireless Station, Applecross.
 Tasmania
 7MA—M. G. Bureleigh, 53 Pitt Ave., Maraway-le, Launceston.
 Territories
 9UH—J. F. Hanran, C/o Dept. of Civil Aviation, Port Moresby.
 9PF—P. T. Filmer, Kavieng, New Ireland, T.N.G.

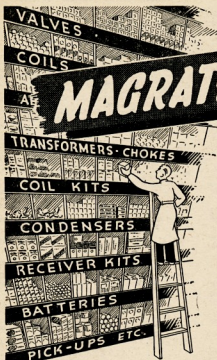
ALTERATIONS

- VK— New South Wales
 2BY—7 Jamieson Street, Broken Hill South.
 2FY—26 George St., Greenwich Point, Sydney.
 2KP—2 Carrington Avenue, Carlingbah.
 2ML—22 Kurrajong Street, Sutherland.
 2QZ—2 Verdriebe Avenue, Sydney.
 2TH—Flat No. 4, 5 William Street, Randwick.
 2VH—Gipps Road, Keiraville.
 2AKW—14 Dedden Street, Concord.
 2AFO—55 Bridge Road, Hornsby.
 2ARD—C/o "East Camp," Snowy Mountain Authority, Cooma.
 2AYO—13 Kelvin Avenue, Picnic Point, Panania.
 2AYO—Federal, via Lismore.
 Victoria
 3KY—29 Elizabeth Street, East Brighton, S.E.
 3OA—Station: 69 Poy Street, Kerang; Postal: P.O. Box 61, Kerang.
 3AAP—28 Mitchell Street, Maldstone.
 3APY—75 Berry Avenue, Chelsea.
 3AJH—132 Liberty Parade, West Heidelberg.
 3AKD—Main South Road, Drouin.
 3AMV—106 Victoria Street, Warragul.
 3ATL—Station: Congregation Church Hall, Gheringham St., Geelong; Postal: 158 Kilgour St., Geelong.
 3AUB—Elmo Road, Monticeny.
 Queensland
 4CJ—Cr. Jane and Naughton Streets, Wandal, Rockhampton.
 4ES—Fort Street, Upper Mt. Gravatt, Brisbane.
 4IM—No. 87 Thorns Street, Kangaroo Point.
 4LT—Drayton Street, Nanango.
 4NG—Station: Millawa St. West Rockhampton; Postal: P.O. Box 25, Rockhampton.

- South Australia
 5MY—15 Mackay Avenue, Plympton.
 5RP—1 Glenloch Avenue, Westbourne Park.
 Western Australia
 6BY—Cr. Glenloch and Lombard Sts., Applecross.
 6FC—16 Brook Street, Kalamunda.
 Tasmania
 7BK—53 Dowling Ave., Dowling Point, Hobart.
 7WN—House No. 2, Camp, Terrahesh.
 Territories
 9GV—C/o D.C.A. Mess, Lae.

DELETIONS

- New South Wales: VKs 2DR, 2SZ (now operating under 9PF), 2VV, 2AIZ, 2AKH, 2AIZ, 2AMA (now operating under 7MA), 2AVM.
 Victoria: VKs 2W, 2W, 2W, 2W, 2W, 2W, 2W (now operating under 2AO).
 Queensland: VKs 4JH (now operating under 9UH), 4KX.
 South Australia: VK5CV (now operating under 3AAC).
 Territories: VK9RO.



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TAS.: W. G. Genders Pty. Ltd.

VK-ZL DX CONTEST, 1954

N.Z.A.R.T. and W.I.A., the National Amateur organisations in New Zealand and Australia, invite world-wide participation in this year's VK-ZL DX Contest. The object is for the world to contact VK and ZL stations, and vice versa.

When: PHONE—24 hours from 1000 hours G.M.T. Saturday, 2nd October, to 1000 hours G.M.T. Sunday, 3rd October. C.W.—24 hours from 1000 hours G.M.T. Saturday, 9th October, to 1000 hours G.M.T. Sunday, 10th October.

RULES

1. There shall be three main sections to the Contest—(a) Transmitting C.w., (b) Transmitting Phone; (c) Receiving, Phone and C.w.

2. The Contest is open to all licensed Amateur transmitting stations in any part of the world. No prior entry need be made. Mobile Marine or other non-land-based stations are not permitted to enter the Contest.

3. All Amateur frequency bands may be used, but no cross-band operation is permitted.

4. Phone will be used for the first week-end and c.w. for the second week-end. Stations entering for both phone and c.w. sections must submit entirely separate logs for each.

5. Only one contact per band is permitted with any one station for contest purposes.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operators operate any particular station, each will be considered a competitor and must submit a separate log under his own call sign.

7. **Cyphers:** Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of 5 or 6 figures will be made up of the RS (telemetry) or RST (c.w.) reports plus three figures which may begin with any number between 001 and 100 for the first contact and which will increase in value by one for each successive contact, e.g., if the number chosen for the first contact is 053, then for the second contact the number must be 054, for the third 055 and so on. If any contestator reaches 999, he will start again with 001.

8. **Scoring: For VK and ZL stations ONLY**—Fifteen points will be scored for the first contact on a specific band with any overseas country; fourteen points will be scored for the second contact on the same band with the same country; thirteen points for the third and so on to the fifteenth contact which will score one point. All contacts with that particular country on that band will thereafter count one point each. This scoring procedure will be repeated on each band to encourage multiband operation. There will be no VK-ZL contacts between each other. Official A.R.R.L. countries list will be used. **Note:** Points will not be entered in the log for each contact—totals for each country will be shown in the summary. **Each CALL AREA in the U.S.A. will be "country" for scoring purposes.**

Overseas Scoring: One point will be scored for each contact on a specific band with any VK-ZL district. The final score will be derived by multiplying the total contacts on all bands by

the total number of VK-ZL districts worked on all bands. VK-ZL districts are: ZL—1, 2, 3, 4; VK—1, 2, 3, 4, 5, 6, 7, 8.

9. **Logs:** (a) Logs must show in this order: Date, time in G.M.T., band of operation, call of station worked, serial number sent, serial number received.

(b) A separate log must be submitted for each band. For each band an analysis sheet must be given showing: List of countries worked with numbers of contacts for each country and points claimed for each country worked, and total points for that band.

(c) A summary sheet to show: 1, station call sign; 2, name and address of the operator; 3, phone or c.w.; 4, list of points claimed for each band; 5, grand total of points; 6, brief description of equipment used during the Contest—transmitter, power, antennae, etc.

(d) A declaration that all Contest rules and regulations for Amateur Radio in your country have been observed and that the log is correct and true to the best of your belief.

10. The right is reserved to disqualify any entrant who, during the Contest, has not observed regulations or who has consistently departed from the accepted code of operating ethics.

11. The ruling of the Executive Council of N.Z.A.R.T. will be final in the event of any dispute.

12. **Awards:** N.Z.A.R.T. will award attractive certificates to the top scorer on each band and the top scorer in each VK and ZL district. Awards will be announced by N.Z.A.R.T. and W.I.A. Additional certificates will be awarded, depending upon the number of logs received.

13. Entries from VK and ZL stations should be posted to N.Z.A.R.T. Contest Manager, Box 469, Wellington, New Zealand, to arrive no later than 21st January, 1955.

Receiving Section

1. The rules for the receiving section are the same as for the transmitting section, but it is open to all members of any shortwave listeners' society in the world. No transmitting station is permitted to enter for the receiving section.

2. The Contest times and logging of stations once on each band per week-end are as for the transmitting section. Logs will take the same form as the transmitting section.

3. To count for points, the call sign of the station being called; the call sign, strength and tone of the calling station, together with the serial numbers sent by the calling station must be entered in the log. Scoring will be on the same basis as for transmitting stations.

4. It is not sufficient to log a station calling CQ.

5. VK receiving stations may log overseas stations and ZL stations, while ZL receiving stations may log overseas stations and VK stations.

6. Certificates will be awarded to the highest scorers in each country. Extra certificates may be issued depending upon the number of entries received.

AN AID FOR COMPUTING SCORE

No. of Contacts	Pts.	No. of Contacts	Pts.
1	15	11	110
2	29	12	114
3	42	13	117
4	54	14	119
5	65	15	120
6	75	16	121
7	84	17	122
8	92	18	123
9	99	19	124
10	105	20	125

— . . . —

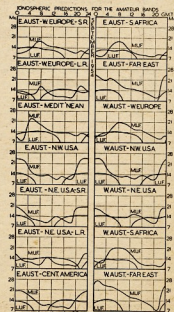
Wireless Operator Required for Flying Doctor Service

The Victorian Section of the Flying Doctor Service of Australia, which established and maintains the Flying Doctor Base at Wyndham, North-West Australia, is establishing an additional base at Derby, W.A.

Tenders have been accepted and it is expected that the building for the Wireless Control Station, and the Operator's Residence, will be completed early in the new year.

A Wireless Operator for the Base is required, and any member of the Institute interested is invited to communicate with the Secretary of the Section, Mr. J. W. Collings, 434 Collins Street, Melbourne. An up to date residence, providing for the operator and his family is being erected. This appointment offers a good opportunity for a young man possessing the necessary qualifications.

PREDICTION CHART FOR SEPT., 1954



FIFTY MEGACYCLES AND ABOVE

NEW SOUTH WALES

The July meeting of the V.h.f. Group took place at the usual location, Science House, in Gloster Street. The evening was firstly devoted to clearing a number of agenda items dealing with the 144 Mc. tx. The speaker, 2HE explained his method of obtaining drive to the 2236 final of his new 144 Mc. tx demonstrating the result on a nicely constructed rig. The speaker then dealt with the 144 Mc. tx. present joined in discussing unusual questions dealing with various aspects of radio theory, much to the amusement and enjoyment of all. The speaker then dealt with the 144 Mc. tx. by inclement weather. The fox, 2HRI, 2HL, was run to ground by John 2ANF. The final location for lunch was at John 2WJ's QTH at Brinsely. After lunch, details of the 144 Mc. tx. were discussed and the 144 Mc. tx. complete parts list made out. Those present were 2WJ as host, 2ANF, 2HL, 2APQ, 2AJZ, 2AJA, Eas Griffiths and Colin. This has enabled the speaker to deal with the layout and determining the overall size of the units.

The 144 Mc. Mid-Winter Contest took place on the evenings of the 17th and 18th when a total of 25 stations took part—not as many as last year, but an enjoyable contest. The aim was to work as many stations as possible, and to exchange between themselves one contact with any station each night to count. The results were as follows: 2ANF 39, 2LG 37, 2HE 36, 2OA and 2APQ 34, 2HO 31, 2IL 31, 2AJZ and 2JL 30, 2JL 29, 2JL 28, 2JL 27, 2JL 26, 2JL 25, 2JL 24, 2JL 23, 2JL 22, 2JL 21, 2JL 20, 2JL 19, 2JL 18, 2JL 17, 2JL 16, 2JL 15, 2JL 14, 2JL 13, 2JL 12, 2JL 11, 2JL 10, 2JL 9, 2JL 8, 2JL 7, 2JL 6, 2JL 5, 2JL 4, 2JL 3, 2JL 2, 2JL 1. Congratulations to John for a good effort; also to Horrie 2RL. Our Contest Manager was very pleased with the number of logs received, 60 per cent.—a very

Now that the Mid-Winter Contest has passed, the next annual fixture of the Group is the Spring Field Day to be held on Six-Hour Day, 17th March. This is a very important fixture in that Sydney stations go further afield than usual to enable more of the country to be covered. The plan is to have a link to form a chain of 2 mx stations from Sydney north to the Hunter District, over the Blue Mountains, to the Murrumbidgee, to the West, Western, Canberra and back to Sydney, covering as great an area as possible. Then after the link is made, stations are to be worked through the circuit, each station will assist stations operating on either side of them in an emergency.

Plans are being made by the Group for the extension of this object to enable links to be made with stations in other parts of the country. Then the link station they make contact with and it is hoped to extend links to say the north and south coast. It is also planned to be able to extend links to VKS

Several country stations have signified their intention to take part and John 2ANF, the Secretary of the Group, would like to hear from any station who wishes to take part so that arrangements can be made to perhaps place a portable station in a location to ensure continuity in the circuit.

We hear that Jim 2AJ0 at Coolamon had a f.b. contact with 3ATN at Birchip, a distance of 270 miles. A very good effort. This now makes the link through to VK3 possible for the Spring Field Day.

Lectures for the September and October meetings have been arranged and will be "Maps and Mapmaking" and "Points on the manufacture of Condensers" in that order. So keep the first Friday of the month in mind and come to the V.h.f. Group's meeting.

John 2ANF continues to work. Hugo 2WH on sked each night. Adrian 2HE does skeds with Fred 2AGY at Newcastle. Bob 2QA is busy on the drawing boards, planning the layout for the 2W, 24 Mc. equipment. Ted 2ABO operated portable 2W from the South Coast to Mount Keria with a very nice signal. Ted 2XX's tower is fast taking shape. New stations on the band were Norm 2ALJ, Wal 2EW and Jim 2AAS. Welcome to the band chaps.

A note on grounded grid amplifiers from John 2ANF, which should interest those who are experimenting with v.h.f. rx's. The layout of grounded grid amplifiers in v.h.f. rx's is a fairly obvious one, but many Amateurs still seem to take the wrong path.

The idea is to isolate input and output circuits to prevent regeneration. As the grid is the grounded and shielding element, the plate circuit should be confined to one side of the shield and the cathode circuit to the other. The shield should run across the centre of the socket and all components in the cathode and heater circuit be on one side of the shield.

The most common error made is with the 6J8. Here it is most convenient to run the heater chokes (which are essential) on the plate side of the shield. This should be avoided.

Even if it means some tricky bending, arrange the shield so that the heater pins are on the cathode side of the shield. It is most easily achieved by making pin 1 the active plate and grounding pin 2. The shield may then run between pin 2 and the space between pins 1 and 7. Now there is a suggestion that may make all the difference in that rx you intend to use for the Spring Field Day.

A few more frequencies to note: 2ALJ 144.2 Mc., 2ABR 144.48, 2JH 144.68, 2QZ 144.92, 2AQB 145.3, 2EW 145.9.—2APQ.

VICTORIA

The main activity in VK3 continues to rest with the Western District group. 3AGD at Coleraine has now a 5 over 5 up 80 ft. 3ATN at Birchip has a 30 element also up 80 ft. 3AKR at Westmore has a 4 over 4 over 4 up 40 ft. 3CI at Nagambie has a 32 element. 3PG also has a 32 element. 3LN has a 20 element and new stacked beams are in the course of construction at 3BW at Portarlington and 3BQ. This great enthusiasm for stacked arrays has resulted in many contacts and really good and consistent signals are regularly heard from all of the above stations.

3ZAA has made a very excellent initiation to the band and is on every night with an 829 first feeding a 5 beam. Very little activity has been heard from any of the 3Z's with the exception of 3ZAC and 3ZAD. The C.D.E.N. Fox Hunt last month resulted in the best turn up so far and at the conclusion of the Hunt, 22 of the gang enjoyed the hospitality of his home. On this occasion a mass start was tried with the fox car, 31N, receiving only a ten minute start. On the first run, the fox car was successful in evading the hounds. On the second run he was caught by 3ADU, followed by 3YS-3AB combination, then 3ZAA and Norm Bench. On the final run to 30N location, 3YS and 3ADU were successful in catching the fox. The hunt will continue throughout the year on the second Wednesday of each month, so put a note on the calendar and if you are home get on the hunt. Help make the hunt a success.

The V.h.f. meeting this month took the form of a visit to the manufacturing plant of Australian Paper Mills and the Group is indebted to Norm Dench for the excellent arrangements. All who participated thoroughly enjoyed an interesting and unusual evening. The VK3 gang are looking forward with anticipation to the proposed Australia-wide field day to be arranged by the VK3 boys in October.—J.N.

SOUTH AUSTRALIA

During the month of writing some activity on 576 Mc. should come forth from its chassis and should repay the efforts of Bob SPU who has been working on the 576 Mc. line oscillators for the VK5 boys at a price within their pockets. Brian SCA has succeeded in using one as a mod. one, and a second as a mod. one, and a third as a mod. one. I can't say DX, what! And as Brian says, "If I can, who can't!" It has a disc-seal tube with grounded grid, tuned mode, tuned anode circuit, and a couple of tuned anodes comfortably. Should provide good training ground for my young 2nd op., Graeme, who is a very good student. I hope to see him. Thanks Bob from the v.h.f. experimenters. I guess that you, Col. Keith, Ray and all the others will be having a thoroughly happy and helpful time.

283 Mc. also seems to be reviving from its rabbit-killer of last year and Tom STD reports that he is on the band every Sunday 1630 hours or immediately following the 5WI session; with Bob 5FR also on the lookout for contacts. Tom has made a regular schedule of this for over 18 months and hopes to continue indefinitely. So turn your eyes and beams to the East chaps and line Tom up.

Close at hand, as the crow flies, is Ian 5ZAA who wasted no time as you can see by the call sign and in spite of his 'Vanity' career, he has been a very active participant in the further afield literally, is Don 5ZAM at Radium Hill with ambitions on 144 Mc, and a fervent proponent of the use of the 2 meter band for radio propagation. Should be able to make some contact with Berri Don when you get going. Finally, I have been in action and have been out into the surrounding areas, some sort of a network with STL, 5BC, 5LE and 5ZAM should be the goal, I should think. I have been in the area for some time, but to date no success with 3CI in spite of skeds; but Tom at Renmark is faithful to Hughie and I will reach out to him and the other 22 spaces. Wait till you get into them yourself Tom, perhaps the signals will be homing

News from the South East, concerns mainly the opinions on the tape recording and the

literature. By the time you read this chapter, the Institute will own a Fordagraph and I will be able to forward copies of the script to each of you instead of one miserable copy! The months of July and August have been hectic ones for me and I haven't been able to edit the recording on "Crystals," but hope on—my holidays are close at hand and it should appear at the end of August.

April issue of "Radio and Television News" contains an excellent article on a 144 Mc. tx-rx using three 6J6s in the r.f. section with the oscillator and mixer stages in parallel. The oscillator and tx audio compound-tuning section of the rx uses a 6AK5 r.f. amplifier, 12AT7 o.s.c., with the second half acting as a mixer. The output on the 100 mc. stage is important. The oscillator is coupled (including the o.s.c. injection on 125-130 Mc.) as follows:

1. As this was built for C.D. operation, it is not a good idea to use a 600 ohm antenna.

2. My copy from the Adelaide Lending Library is a SPS, so should be available to the city and country boys on application to the Library.

3. The antenna should be a 100 ohm antenna of the "plumbers" working over a 47 mile distance on 10,000 Mc.—repeat 10,000 Mc. Klystrons feeding and mixing by parabolic reflectors.

4. The r.f. section of the rxdid not have a

Oh, well chaps, back to the pipe dreams—5XU.

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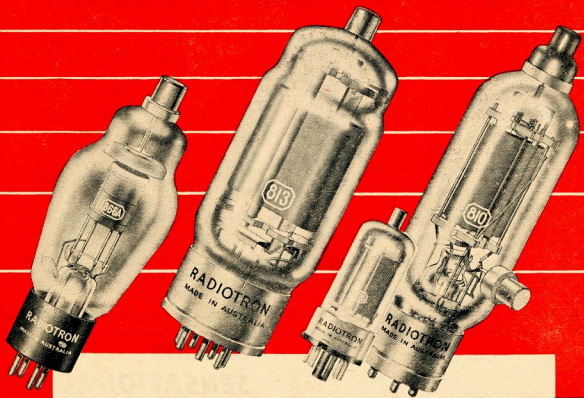
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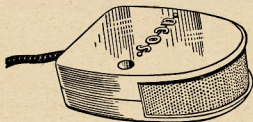
List Number	L688	L600	L336	L1221	L809	L692
Description	Semi Air Spac. Coaxial	Solid Coaxial	Unscreened Twin	Screened Twin	Solid Coaxial	Unscreened Twin Ribbon
Overall Size	3/10-inch	1/2-inch	3/16 x 1/8-in.	1/2-inch	0.165-inch	0.4 x 0.1-in.
Dielectric	Polythene	Polythene	Polythene	Polythene	Polythene	Polythene
Outer Cover	P.V.C.	P.V.C.	P.V.C.	P.V.C.	P.V.C.	P.V.C.
Characteristic Impedance	68-78 Ohms	60-74 Ohms	75-85 Ohms	60-75 Ohms	45-55 Ohms	275-325 Ohms
Capacity per Foot	17 pF.	21.5 pF.	18 pF.	24 pF.	35 pF.	4.6 pF.
Attenuation per 100 Feet—						
1 Mc.	0.2 db	0.4 db	0.5 db	1.2 db	0.92 db	0.15 db
10 Mc.	0.68 db	1.3 db	1.5 db	3.0 db	2.90 db	0.4 db
100 Mc.	2.4 db	4.3 db	5.0 db	—	6.00 db	—
Loading (Watts in Air) at—						
1 Mc.	1500	1500	1000	500	—	—
10 Mc.	500	500	300	150	—	—
100 Mc.	150	150	100	—	—	—
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Complete with packing 3 3/8in x 2 1/2in x 2 1/2in.

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Field, Liberia.

Rate 25L was received by SAHH: VK0K
ODSLX 25L was received by DUTSV: HR1FY
YV5AP ZC4P: 2AMB LA6U (7 Mc.): 8CX:
F18AE: 3PV/APV: T12TG, J20KF, 3ZA: C8AZ,
P2J. KP4JE: 5HI: HC1LV, J20KF, LUTDX
CE3DZ, Z5JY, ZD2DCP, 4X4FA, HR1FM
VP8M: 5WO: C89AF, OQSVN, F18AE, LUSAQ
Z5BJO, 584AX, 6WT: EL2X: 7PM: FKAB
HK4JF, HP3FL, HC1FS: B8RS10: K6KA
W21AC/OM: 1AHH, Z5SF, YQ8R, 45TRA

Another month's reports have been covered and I say thank you to VKs IAC, IDY, ZQL, 2PA, 2AHH, 2ALJ, 2AMB, 2APL, 2ARV, 3CX, 3JJ, 3KR, 3PV/3APV, 3XO, 3YD, 3YS, 3ZA, 3ZO, 3ADI, 3ADM, 3AKR, 3AQJ, 4XJ, 5HI, 5RG, 5RK, 5WO, 6WT, 7PM, 7WN, and our s.w.'s, BERS185 and Jim Hunt.

S.W.L. NOTES

The response to the recent W.I.A. campaign for S.W.I. Sections has been

Unfortunately, our S.W.L. Sections has been extremely busy lately, and it may be some time until an appropriate column column can be established, a column with the answers to all questions, technical puzzles, etc., of our s.w.l.s., ranging from the curiosities of a crystal set to "why can't I hear with my 16 tubes rx what the little t.r.f. next door shows up?" from "how to get DX QSLs" to clear hints on operating technique. Thus, just to keep the ball rolling and the interest up, we'll give some space to our "DX QSL" section after all, who could be more interested in your reports than your DX scribe?

Of course, our first notes should be directed to the real beginners in the game—those young 13-17 years old with a great enthusiasm, a few shillings in their pocket, and more enthusiasm!

What Receiver Should You Build or Buy?

Even if you can afford it, don't use a complicated apparatus with anything between 8 and 25 tubes, noise limiter, crystal filter, etc. Put it aside, get the circuit of a simple regenerative receiver with one or two tubes! Build it yourself; if necessary, consult the Amateur across the road, and if you really have an active Amateur living across the road, put a simple r.f. stage ahead of your receiver; he

Will tell you why:
Spend only your spare time with radio;
always remember Amateur Radio is a hobby
and your school work and other work comes
first! Get an exercise book and enter data on
the signals you have heard, for example: date,
time, call sign, QTH, c.w. or phone. What?
Yes, my friends, at your age there is a reward

other than work, for not learning the "code." Generations before you have used for communication and generations after you will always use too! There are W.I.A. classes for c.w. and also the Slow Morse Transmissions (3504 Kc.) by the South Australian and Victorian Divisions (VKs 5RR, 5TL, 3GU, 3HE and 3AHH).

Do you know why we suggested a t.r.f. receiver for your first attempts? Well, for efficient operating on the bands the operator must have great practice and a sense of touch, otherwise he will always buy a better receiver (more expensive, too) without improving his results. Maybe my opinion is old-fashioned, but it's still the man at the receiver whose operating skill

seen a Amateur operating his receiver like a sharp curve? Look away, don't try to tell him that he's wrong; he'll tell you dozens of reasons why he does it—let us, he just hasn't any "sense of touch," which you can best learn by using a t.r.f. for your first c.w. activity. Take your time in tuning the bands for DX and be more choosy in listening for interesting call signs will be your reward.

OK, enough for today, but before concluding the provisional S.W.L. Notes, I may mention that a well known U.S. Radio Magazine said that our S.W.L. Eric Trebilcock, BERS195, is probably the world's most famous shortwave listener, and his excellent results in nearly thirty years confirm it!

So, you young s.w.l's, Eric has set a high standard for s.w.l. reports from VK into the whole world, and it is up to you, to keep

[illegible]

Norm 2ALJ worked KH6ARN* and W5BHV*. YS mentions W4VUU/MM. 7PM heard W6. Jim sent heard KH6s, Ws, W4VUU/MM, W2JAC/MM, W3UKY/MM, DU7SV.

27 and 28 Mc.: Still the same; the layers will not co-operate. Both 2ALJ and Jim Hunt heard nothing despite consistent listening. Anyway thank you for reports!

According to a recent announcement, the Government plans to expand the Australian Research Installation at Mawson, Antarctica and to withdraw the expedition on Heard Island next summer. FB8XX is active around 0600z from 20L 30X.

VK CALL SIGNS

Under the Copyrights Act the W.I.A. must receive payment for the service of supplying any publisher with an up-to-date VK list and the monthly amendment sheets in order to maintain validity of the copyright under the terms of the W.I.A.'s contract with the Postmaster General's Department of the Commonwealth of Australia.

It is expected that this matter will be satisfactorily concluded at an early date.

* Call signs and prefixes worked.
z—zero time—G.M.T.

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FEDERAL, QSL, and DIVISIONAL NOTES

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Fed. President: W. R. Gronow, VK3JWG.
Fed. Secretary: G. M. Hull, VK3ZS, Box 2611W, G.P.O., Melbourne.

QSL Bureau: F. R. Jones, VK3JR, 23 Landale Street, Box H, E.L. Vic.
DX CC Manager: G. I. Morris, 50 Eighth Street, Parkdale, Vic.

NEW SOUTH WALES

President: Jim Corbin, VK2YC.
Secretary: Harry Hickin, VK2ACH, Box 1734 G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at Science House, Gloucester Street, Sydney.
Divisional Sub-Editor: Ted Whiting, VK2ACD, 16 Loudon Street, Five Dock.

QSL Bureau: J. B. Corbin, VK2YC, 78 Maloney St., Eastlake, Sydney (Inwards and Outwards).
Zone Correspondents: North Coast and Tablelands: Noel Hanson, VK2AHB, Ryan Ave., West Kempsey; Newcastle: Ron McD. Stuart, VK2ASJ, 88 Dunbar St., Stockton; Coffsides and Lakes: Harry Hawkins, VK2YL, 27 Comfort St., Coffs Harbour; Western: W. L. Sitt, VK2WH, Cambianga, Forbes; South Coast and Southern: Eric Fisher, VK2DY, 2 Oxide St., Warragul; Open: W. J. G. Edgell, VK2AJ, VK2AJQ, Wallace St., Coolamon; St. George: Chas. Coyle, VK2BK, 48 Carlton Cres., Kogarah; Western Suburbs: Barry White, VK2AAB, 33 Flavelle St., Concord.

FEDERAL

EMERGENCY OPERATION

Conditions and circumstances of National Emergency Operation are fully covered in the Handbook for Operators of Amateur Wireless Stations. Those relating to "Local" Emergency are less explicit.

In relation to this, Federal Executive sought clarification from the Amateur Administration. Although it is not possible to lay down inflexible rules to be observed, the following points are published in order that Amateur Station Operators will have some knowledge of what can be expected of them.

In an emergency of a "Local" nature, the Amateur licensee should always place himself although in the direction of the civil authority co-ordinating all activities relating to the emergency. This is usually the local Police, though in some cases other officials such as the local Postmaster, Mayor, or Regional Fire Officer may be the directing authority. However, it is suggested that as a general rule the Amateur licensee should first consult with the local Police.

As the licensee is responsible for the operation of his station he should see that only authenticated traffic is passed and that his own call sign is used. Frequencies within the Amateur bands should be used. The co-ordinating authority will be responsible for the traffic that is passed and no call sign will be accepted by the Amateur Station licensee.

Recalling the fine tradition shown in the past by Amateurs in Australia, it is hoped that this outline will be of value to those who may be called upon to provide service in situations requiring immediate action.

ANOTHER ONE TO GO FOR!

The Amateur Radio Association of Trieste (A.R.A.T.) has instituted an award, known as the F.T.T. Certificate, which will be issued to any licensed Amateur submitting confirmation of successful communication with Amateur Stations in the Free Territory of Trieste. Contacts may be in any of the Amateur bands from 3.5 to 14 Mc.

Full details can be obtained from A.R.A.T., Box 301, Br./U.S. Zone, F.T.T., Trieste.

AMENDMENT TO FEDERAL CONSTITUTION

Under the direction of the Federal Council of the Wireless Institute of Australia, Federal Executive has given notice that it is intended to alter the Federal Constitution (1947) of the W.I.A.A. as follows:

Section 20. By deleting after the word "and" in the second (2nd) line, the words "two other members" and inserting in lieu thereof, the words "four other members".

VICTORIA

President: G. Dennis, VK3TP.
Secretary: C. Gibson, VK3FO.

Administrative Secretary: Mrs. G. Pickering, Law Court Chambers, 191 Queen St., Melbourne.
Meeting Night: First Wednesday of each month at Radio Society, Meib, Technological College, 100 Thomas St., Melbourne.

Divisional Sub-Editor: K. E. Pincott, VK3AFJ, 14 Dunscombe Ave., Ashburton, S.E.11.

QSL Bureau: Inwards—Graham Roper, VK2BZ, 28 Lucas St., South Caulfield, Vic. Outwards—Frank O'Dwyer, VK2QF, 189 Thomas St., Hampton, S.V. Vic.

Zone Correspondents: Central Western: Merv. Collier, 16 Nungate Road, Moorabbin, S.V. Vic. Western: W. Wines, 11 Redford St., Warrnambool, and E. Giddings, VK3ANQ, 8 Nelson St., Warrnambool; North Eastern: A. D. Buchanan, VK3VD, "Booroomal", Warrnig; Far North Western: M. Folie, VK3GZ, 101 Lemon Ave., Mildura; Eastern: Leo Dwyer, VK3SG, and John Bettrick; North Western: C. Case, VK3ACE, Cumming Ave., Birehip.

QUEENSLAND

President: Harold Murphy, VK4HM.
Secretary: Ern Moore, Box 63BJ, G.P.O., Brisbane.

Meeting: First Friday in each month at the Royal Geographical Society Rooms, Ann Street, City.

Divisional Sub-Editor: J. T. Hope, VK4XI, Royal Parade, St. John's Wood, Ashgrove.
QSL Bureau: Inwards—J. Flies, VK4JF, Wanda St., Buranda; Outwards—Miss Clair O'Brien, 20 Jardine St., Stafford.

FEDERAL QSL BUREAU

RAY JONES, VK3BJ, MANAGER

Eric Macdon, ex-VK1EM of Macquarie Island a year or two back, will be making the trip to Maxwell, on Friday, 21st July, and will possibly have Hugh Oldham, ex-VK1WO as a colleague.

ZL4JA and ZL4MY expect to be in Australia for a couple of months commencing December next. ZL4JA made the trip last year and likes us so much that he is returning and bringing his pal with him. They plan to move around most of the Eastern States including Tasmania.

VK4IC, Willis Island—375 miles east of Cairns—in the far northern part of Queensland, requests QSL via W.I.A.A. as Willis Island gets only one mail per year—usually in June. The only human beings there are two radio men and one meteorologist. They are always glad of a call, so don't pass them up although their location doesn't count as a new country.

KC6KU, in a recent QSL to Eric BERR198, requests SWL reports on his signals. His address is Jack Youngstrom, Kussie, Caroline Islands. Jack, an American, uses a Viking transmitter and is seeking VK5 and VK7 contacts. He has already contacted all other VK districts. Jack is having his first experience of Amateur Radio while located at the Carolines.

Leo Rand, WJ4ACMM, aboard S.S. Pioneer Glen, recently left Melbourne, solicits VK QSOs. He QSLs OK with an excellent card.

Frank Anear, VK9WZ, in a letter under date of 18th July, is very pleased with a Gelofo VFO which recently came to hand, and is more than pleased with the suggestion in a recent "A.R." to substitute a 6L6 as last tube in place of a 6V6. He has been off the air since early May re-building the rig and using the all band final described in October, 1953, "Amateur Radio."

Details of the awards available from the Radio Club of Cuba, and the Radio Club of Costa Rica, are available from this Bureau.

On 11th July, W6AM informed writer that two W4 Amateurs were due to be in HV (Vatican) about the middle of July, and that if they were successful in getting on air from that locale.

W4QCW and W4VQZ were scheduled to arrive at KCA Naval Island—on 1st August for five days' operation. It was recently announced that KC4 is regarded as a new country. It is located between Cuba and Haiti and of course is U.S.A. owned. This information also from W6AM.

Enquiries reveal that Jim Carr, ex-VK1JC, has not sent out cards because of his youngster and inadvertently burned the log book!

SOUTH AUSTRALIA

President: G. M. Bowen, VK3XU.
Secretary: R. G. Harris, VK3RR, Box 1234K, G.P.O., Adelaide. Telephone: J 1151.

Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK3FS, 10 Victoria Avenue, Rose Park.

QSL Bureau: G. L. Lucas, VK3XK, 8 Brook St., West Mitcham, South Aus. (Inwards and Outwards).

WESTERN AUSTRALIA

President: F. A. T. Tredrea, VK6PT.
Secretary: J. Mead, VK6LJ, Box N1002, G.P.O.

Meeting Place: Perth Technical College Annex, Mounts Bay Road, Perth.

Meeting Night: Third Tuesday of the month. Divisional Sub-Editor: D. E. Graham, VK6HK, 110 Edinburgh St., Mt. Hawthorn.

QSL Bureau: Jim Rumble, VK6RU, Box F319, Perth, West. Aus. (Inwards and Outwards).

TASMANIA

President: L. E. Edwards, VK1LE.
Secretary: W. G. Tait, Box 371B, G.P.O. Hobart.

Meeting Night: First Wednesday of each month at the W.I.A. Club Room, 147 Liverpool Street, Hobart.

Divisional Sub-Editor: L. E. Edwards, VK1LE, 126 Strickland Ave., Hobart.

QSL Bureau: Ray Calvert, VK1RT, Box 371B, G.P.O., Hobart. (Inwards and Outwards).
Zone Correspondents: Northern: M. A. Chaplin, VK1CA, 56 Trevallyn Rd., Launceston; North Western: J. Wilson, 11 Cunningham St., Burnie, Tasmania.

NEW SOUTH WALES

The monthly meeting of the N.S.W. Division was held at Science House, Gloucester Street, Sydney, on Friday, 21st July, and as usual despite the efforts of Council to provide an interesting lecture.

The meeting was opened by the President, Jim Corbin, 2YC, and after the usual formalities were dispensed with, the meeting was handed over to a lecturer for the evening, Mr. Michael Callaud, who gave a most informative and interesting lecture on the "Aqua Lung and Diving." Mr. Callaud gave the technical details of the Aqua Lung and recounted some of his experiences in diving both in Australian waters and in the Mediterranean, and followed the descriptive part of his discourse with some explanatory films which gave a great insight into the work done in France in the perfection of the art. The films were a graphic representation of the inspection of the wrecks off Toulon following on World War II, and impressed most of the audience, especially the anglers who were fascinated by the fish, only to be assured that the fish in our 'arbours were both more sizeable and plentiful than in the Medi-

MY XYL SAYS!

WHY is it that if our hobby is purely amateur, quite a number of the boys attempt to carry on a professional conversation when on the air.

My XYL says that if a Ham is in professional radio outside his hobby, he usually tries to hide that fact when he is "Hamming," but some Amateurs, possibly from an inferiority complex, keep introducing a mass of technicalities into the ragchew which at times are the source of much amusement at the other end of the conversation.

Of course my XYL is ignorant of the finer points of Amateur Radio and can be forgiven, if not silenced!

—OIGLE.

terranean. This latter discussion by M. Callaud is possibly responsible in part for the lack of signals on the bands.

Disturbances on the v.h.f. equipment being constructed by the V.h.f. Group, it being reported that in the near future that the receiver will be complete, the transmitter will be ready to be tested. Finally the meeting was closed and members filled in the remaining time with the familiar ragchew which, as usual, concluded in the street.

SOUTH WESTERN ZONE

New ideas is very scarce this month as even the old stalwarts have not been able to come back up this last two Wednesday nights. Ray 2APZ has acquired an SCR552 rx so we hope to hear him on the 20 m. band soon. The future, Geoff and Ross at Tumut are hard at work getting 144 Mc. mobile gear going to their satisfaction. Lyn 2AB is working on a 100 watt console cabinet; he has visions of moving the rig into the lounge now that things look presentable. Keith Dodd, at Tumut, who call 2ZAA, may come to Kith and hope the v.h.f. gear gets you lots of contacts.

Arrangements are well in hand for the South Western Zone AGM at Tumut. It is to be held on 30th-31st October, so all are requested to keep the date well in mind; buy the XYL new and we hope to meet you all at Tumut on that date.

STOP PRESS—SATN (Birch) and ZALO (Coolamon) make a change of date on 22/7/54—Sydney Link now looks good.

HUNTER BRANCH

The July meeting of the Hunter Branch of the N.S.W. Division W.I.A. was held on Friday, 9th July, at the Tighes Hill Technical College. Lionel Swain, ZCS, presided over the meeting, which was attended by 18 members and associates.

Three films were screened, "Battle of the Vests" and "Salute at Home," and "The History of the Helicopter." Among the correspondence read was a letter of resignation by Harold 2AB. The resignation was accepted and a letter to Harold for the work he had done for the Branch in the past, both in the capacity of a Branch member and as a speaker.

Max 2AB gave an interesting lecture on "Visual Alignment" and used varied equipment to illustrate and demonstrate his points during the lecture. Max ably showed that there is slugs, meanwhile hoping for the best. The lecture provoked much discussion and many were of the opinion that Max was right.

The Social Committee held a meeting at the residence of Bill 2XT to discuss arrangements for the Hunter Branch Field Day on 30th October and the Xmas Social to be held in December. The location of the Field Day is not as yet definitely known as the Committee's application for the use of the site has not yet been received. Definite details of both functions will be found in these notes in next month's "A.R."

One of the joys of the Hunter Branch boys is not so plentiful this month for two reasons, one that there has been a noticeable falling off in activity and, secondly, my chief "collaborator," Ron 2ASJ, is on holiday at Denman. Ron usually supplies me with quite a bit of news each month, so will be missed when he is not on the air.

2XT has made many improvements to his TA12 and the signal that he is putting out on 20 m. is solid and strong, making him one of the two modulators in an endeavour to use the best of the pair. Leo 2AOR has his ATS working on the 20 m. band and he is sure that ZCS is still rewiring his rig; when he will be back on is anybody's guess. Leo 2QB has disposed of his 2 m. gear and is now working Adrian 2EH on 2 m. Charlie 2ARV is on his annual holidays and brought back some information from Wymong where he was working a gamma match. Bear 2AIO at the Entrance has his new 20 m. beam antenna now in use.

The Hunter Branch weekly Net is still operating on Monday evenings at 7.30 p.m. on 7140 Mc. The monthly Net is now being held at the Hunter Branch members are invited to join in the net for a ragchew.

The next meeting of the Hunter Branch will be held at Tighes Hill Technical College on 10th September at 8 p.m.

NORTH COAST AND TABLELANDS ZONE

Once again the impact of threatened flooding has hit the zone and for a while things looked very black indeed, but all concerned were relieved to find the positive action taken to make it possible for normality to be reached. Grief reported to have left his home, but as far as we are concerned he is still in the zone. Ray 2AVG also on the job and was all geared up to work mobile if need be. There is no news from further North, so it appears that all is OK.

Alan 2PH has been holidaying at Port Macquarie and a convention was arranged, which was attended by 2AVG, 2PA and 2PH, your zone officer. Peter 2PA getting around on 20 m. hear the DX calling him most consistently. Terry 2AJS has been in the zone for some time and declares it much better than he had thought, so we may hear more of him on the band these days. Web 2AB is in regular contact with the 144 m. group. 144 m. is of course there has been quite a deal of interest shown in the band since 2ADT arrived. Bill 2ARV is being in the zone and will be final with 813 for use on 80 through 16 m. Grief 2XO busy with the Gieger counter looking at the 144 m. band. Noel 2AHH now has a home constructed job. Noel 2AHH now has 102 countries confirmed. 2PA working plenty of 144 m. and more on 20 m. and 40 m. requested from the zone, so what can be done chaps next month and don't forget Urunga tent Easter.

WESTERN SUBURBS

Barry 2AAB is back on the air again, but not so often at the week-end, must be a reason. 21 ft. beam antenna has been erected, it is 18 ft. above ground, but will soon be around the 30 ft. mark; it is doing well though and puts out a beam. Harry 2AO, will soon be knocking them over as in days of yore. Alex, from the same locality, is in the zone, and is not sure if he can't decide whether the car or the AR38 take the pride of place. 2HU heard now and then at 2AFE. 2AHE heard during discourse on "Fill Rigs." Jack 2ACB still in the zone and will be there when the band opens again.

Leo 2KS heard on the "man's" band occasionally, under 2 m. 2GT not heard so often, but for another while will be on the air, come good; maybe will buy a new banana case to support the beam. 2APT has been on 144 m. for some time, but has not been on the trophies, hi; has other hobbies including one with a 'cous in it, but still anything like a 20 m. beam. 2AHH is still in the zone, beam is doing a fine job for him and he must be about No. 1 man towards 20 m. these days.

2AOK and 2NJ are happy with tape recorders, so no night time work on recorders. 2IV spends quite a time away we hear. 2QX busy at times with the beam, nice work John. 2AQB at Blacktown has been working, but the signal is quite OK but the antenna will, no doubt be improved. 2ACD still getting the beam up, but is working on gear for 60 for the R. 2COC is in the zone, but the beam should be in it this year; we need the logs, so don't forget.

2AOL is rarely heard, and 2AHU has given the game away. Harold 2AAH is still active when studies permit, beam near the ground and used with vertical beam, but has a few contacts. Charlie 2AWQ is busy with Council affairs, but goes on 40 now and then. Noel 2AQB at Blacktown has been working, but with a car accident, is mending gradually and spends some of the time on the air talking to his friend, Laurie 2AKV at Kurrajong Heights. Few signals heard from the Perumetta area, but we hope for reports one day. The most consistent is 2ID who really packs a signal. 2AHL is in the zone, but the beam is a very busy boy with the Class, which reminds me, if any of you chaps want to learn the radio, go to 2AHL, he will be glad to turn at his home address, it's in the new Call Book, or on the Class nights at the Railway Institute.

NOTE—Will members of all zones please send in all notices and suggestions. News items are sent to my QTH, 18 Louden Street, Five Dock, by the 1st of the month as it is required by the 1st of the month. If they must be in their hands to ensure publicity in the issue for which they are intended. It is a matter of regret to me that some zones and portions of other zones are not represented in the notes, so I would be pleased if some of you fellows, both in these areas and others in the suburbs, would write right time and drop me a line. Thanks chaps.

If any zone officers have forthcoming functions, please send them like reported. I would appreciate it if they would notify me so that I can arrange with the Editor before hand.—2ACD.

EASTERN SUBURBS

Compiling notes in this area is something like searching for a proverbial needle. Nobody volunteers appropriate material, so I have to scribble twiddle the dial and keeps the ear open. Even at that the evenings are off-time devoid of life activity, zones at for day and night in period activity—well, I don't know, being one of those who tells days. Firstly, the main point of the paper is to give the zone a good name for the excellent effort in the Call Book. 'Twas sorely needed. Now one no longer wonders where that bloke is, although amendment is

already needed. The Amateur population does not seem to stay put; especially the younger generation.

2AB has been very active on 20 m. phone of late and Phil seems to be getting among the DX, albeit antenna conditions are a bit of a handicap. Ives, on 20 m. has been heard, using beaucoo rhombic. Horrie 2PA says that 2ATA has gone to Lord Howe Island for a couple of months so perhaps he will be heard there. 2AB has been very active at this time of writing, is recovering from hospitalisation and is slowly mending. He enjoys an occasional QSO with the 144 m. group, but is not sure of that which isn't on the dial—until he calls. Any part of the globe is liable to come back.

No names, no packdrill. Heard a local say he wouldn't put in one of these new-fangled electronic circuits, but he would use a good radio-inductive GRM. New-fangled my foot! Brother, we used Faraday screens in rx's and it's, when some of us had our tube filaments lit by "Rusticoid" electric coils. "Radio" and the Handbooks of two decades ago are where you can read all about it.

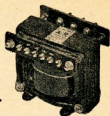
Heard Ray 2AIG saying on 20 m. that he is now using 813 in the first 20 m. band, was heard calling 2AX on c.w. on 40 m, which could be a first appearance for some time, but there is reason to believe that he is active, but on 30 m. Stations abounding in this region which have not been noticed, at least by this scribble, are 2AB, 2AC, 2AD, 2AE, 2AF, 2AG, 2AH, 2AI, 2AJ, 2AK, 2AL, 2AM, 2AN, 2AO, 2AP, 2AQ, 2AR, 2AS, 2AT, 2AU, 2AV, 2AW, 2AX, 2AY, 2AZ, 2BA, 2BB, 2BC, 2BD, 2BE, 2BF, 2BG, 2BH, 2BI, 2BJ, 2BK, 2BL, 2BM, 2BN, 2BO, 2BP, 2BQ, 2BR, 2BS, 2BT, 2BU, 2BV, 2BW, 2BX, 2BY, 2BZ, 2CA, 2CB, 2CC, 2CD, 2CE, 2CF, 2CG, 2CH, 2CI, 2CJ, 2CK, 2CL, 2CM, 2CN, 2CO, 2CP, 2CQ, 2CR, 2CS, 2CT, 2CU, 2CV, 2CW, 2CX, 2CY, 2CZ, 2DA, 2DB, 2DC, 2DD, 2DE, 2DF, 2DG, 2DH, 2DI, 2DJ, 2DK, 2DL, 2DM, 2DN, 2DO, 2DP, 2DQ, 2DR, 2DS, 2DT, 2DU, 2DV, 2DW, 2DX, 2DY, 2DZ, 2EA, 2EB, 2EC, 2ED, 2EE, 2EF, 2EG, 2EH, 2EI, 2EJ, 2EK, 2EL, 2EM, 2EN, 2EO, 2EP, 2EQ, 2ER, 2ES, 2ET, 2EU, 2EV, 2EW, 2EX, 2EY, 2EZ, 2FA, 2FB, 2FC, 2FD, 2FE, 2FF, 2FG, 2FH, 2FI, 2FJ, 2FK, 2FL, 2FM, 2FN, 2FO, 2FP, 2FQ, 2FR, 2FS, 2FT, 2FU, 2FV, 2FW, 2FX, 2FY, 2FZ, 2GA, 2GB, 2GC, 2GD, 2GE, 2GF, 2GG, 2GH, 2GI, 2GJ, 2GK, 2GL, 2GM, 2GN, 2GO, 2GP, 2GQ, 2GR, 2GS, 2GT, 2GU, 2GV, 2GW, 2GX, 2GY, 2GZ, 2HA, 2HB, 2HC, 2HD, 2HE, 2HF, 2HG, 2HH, 2HI, 2HJ, 2HK, 2HL, 2HM, 2HN, 2HO, 2HP, 2HQ, 2HR, 2HS, 2HT, 2HU, 2HV, 2HW, 2HX, 2HY, 2HZ, 2IA, 2IB, 2IC, 2ID, 2IE, 2IF, 2IG, 2IH, 2II, 2IJ, 2IK, 2IL, 2IM, 2IN, 2IO, 2IP, 2IQ, 2IR, 2IS, 2IT, 2IU, 2IV, 2IW, 2IX, 2IY, 2IZ, 2JA, 2JB, 2JC, 2JD, 2JE, 2JF, 2JG, 2JH, 2JI, 2JJ, 2JK, 2JL, 2JM, 2JN, 2JO, 2JP, 2JQ, 2JR, 2JS, 2JT, 2JU, 2JV, 2JW, 2JX, 2JY, 2JZ, 2KA, 2KB, 2KC, 2KD, 2KE, 2KF, 2KG, 2KH, 2KI, 2KJ, 2KK, 2KL, 2KM, 2KN, 2KO, 2KP, 2KQ, 2KR, 2KS, 2KT, 2KU, 2KV, 2KW, 2KX, 2KY, 2KZ, 2LA, 2LB, 2LC, 2LD, 2LE, 2LF, 2LG, 2LH, 2LI, 2LJ, 2LK, 2LL, 2LM, 2LN, 2LO, 2LP, 2LQ, 2LR, 2LS, 2LT, 2LU, 2LV, 2LW, 2LX, 2LY, 2LZ, 2MA, 2MB, 2MC, 2MD, 2ME, 2MF, 2MG, 2MH, 2MI, 2MJ, 2MK, 2ML, 2MM, 2MN, 2MO, 2MP, 2MQ, 2MR, 2MS, 2MT, 2MU, 2MV, 2MW, 2MX, 2MY, 2MZ, 2NA, 2NB, 2NC, 2ND, 2NE, 2NF, 2NG, 2NH, 2NI, 2NJ, 2NK, 2NL, 2NM, 2NN, 2NO, 2NP, 2NQ, 2NR, 2NS, 2NT, 2NU, 2NV, 2NW, 2NX, 2NY, 2NZ, 2OA, 2OB, 2OC, 2OD, 2OE, 2OF, 2OG, 2OH, 2OI, 2OJ, 2OK, 2OL, 2OM, 2ON, 2OO, 2OP, 2OQ, 2OR, 2OS, 2OT, 2OU, 2OV, 2OW, 2OX, 2OY, 2OZ, 2PA, 2PB, 2PC, 2PD, 2PE, 2PF, 2PG, 2PH, 2PI, 2PJ, 2PK, 2PL, 2PM, 2PN, 2PO, 2PP, 2PQ, 2PR, 2PS, 2PT, 2PU, 2PV, 2PW, 2PX, 2PY, 2PZ, 2QA, 2QB, 2QC, 2QD, 2QE, 2QF, 2QG, 2QH, 2QI, 2QJ, 2QK, 2QL, 2QM, 2QN, 2QO, 2QP, 2QQ, 2QR, 2QS, 2QT, 2QU, 2QV, 2QW, 2QX, 2QY, 2QZ, 2RA, 2RB, 2RC, 2RD, 2RE, 2RF, 2RG, 2RH, 2RI, 2RJ, 2RK, 2RL, 2RM, 2RN, 2RO, 2RP, 2RQ, 2RR, 2RS, 2RT, 2RU, 2RV, 2RW, 2RX, 2RY, 2RZ, 2SA, 2SB, 2SC, 2SD, 2SE, 2SF, 2SG, 2SH, 2SI, 2SJ, 2SK, 2SL, 2SM, 2SN, 2SO, 2SP, 2SQ, 2SR, 2SS, 2ST, 2SU, 2SV, 2SW, 2SX, 2SY, 2SZ, 2TA, 2TB, 2TC, 2TD, 2TE, 2TF, 2TG, 2TH, 2TI, 2TJ, 2TK, 2TL, 2TM, 2TN, 2TO, 2TP, 2TQ, 2TR, 2TS, 2TT, 2TU, 2TV, 2TW, 2TX, 2TY, 2TZ, 2UA, 2UB, 2UC, 2UD, 2UE, 2UF, 2UG, 2UH, 2UI, 2UJ, 2UK, 2UL, 2UM, 2UN, 2UO, 2UP, 2UQ, 2UR, 2US, 2UT, 2UU, 2UV, 2UW, 2UX, 2UY, 2UZ, 2VA, 2VB, 2VC, 2VD, 2VE, 2VF, 2VG, 2VH, 2VI, 2VJ, 2VK, 2VL, 2VM, 2VN, 2VO, 2VP, 2VQ, 2VR, 2VS, 2VT, 2VU, 2VV, 2VW, 2VX, 2VY, 2VZ, 2WA, 2WB, 2WC, 2WD, 2WE, 2WF, 2WG, 2WH, 2WI, 2WJ, 2WK, 2WL, 2WM, 2WN, 2WO, 2WP, 2WQ, 2WR, 2WS, 2WT, 2WU, 2WV, 2WW, 2WX, 2WY, 2WZ, 2XA, 2XB, 2XC, 2XD, 2XE, 2XF, 2XG, 2XH, 2XI, 2XJ, 2XK, 2XL, 2XM, 2XN, 2XO, 2XP, 2XQ, 2XR, 2XS, 2XT, 2XU, 2XV, 2XW, 2XX, 2XY, 2XZ, 2YA, 2YB, 2YC, 2YD, 2YE, 2YF, 2YG, 2YH, 2YI, 2YJ, 2YK, 2YL, 2YM, 2YN, 2YO, 2YP, 2YQ, 2YR, 2YS, 2YT, 2YU, 2YV, 2YW, 2YX, 2YY, 2YZ, 2ZA, 2ZB, 2ZC, 2ZD, 2ZE, 2ZF, 2ZG, 2ZH, 2ZI, 2ZJ, 2ZK, 2ZL, 2ZM, 2ZN, 2ZO, 2ZP, 2ZQ, 2ZR, 2ZS, 2ZT, 2ZU, 2ZV, 2ZW, 2ZX, 2ZY, 2ZZ, 2AA, 2AB, 2AC, 2AD, 2AE, 2AF, 2AG, 2AH, 2AI, 2AJ, 2AK, 2AL, 2AM, 2AN, 2AO, 2AP, 2AQ, 2AR, 2AS, 2AT, 2AU, 2AV, 2AW, 2AX, 2AY, 2AZ, 2BA, 2BB, 2BC, 2BD, 2BE, 2BF, 2BG, 2BH, 2BI, 2BJ, 2BK, 2BL, 2BM, 2BN, 2BO, 2BP, 2BQ, 2BR, 2BS, 2BT, 2BU, 2BV, 2BW, 2BX, 2BY, 2BZ, 2CA, 2CB, 2CC, 2CD, 2CE, 2CF, 2CG, 2CH, 2CI, 2CJ, 2CK, 2CL, 2CM, 2CN, 2CO, 2CP, 2CQ, 2CR, 2CS, 2CT, 2CU, 2CV, 2CW, 2CX, 2CY, 2CZ, 2DA, 2DB, 2DC, 2DD, 2DE, 2DF, 2DG, 2DH, 2DI, 2DJ, 2DK, 2DL, 2DM, 2DN, 2DO, 2DP, 2DQ, 2DR, 2DS, 2DT, 2DU, 2DV, 2DW, 2DX, 2DY, 2DZ, 2EA, 2EB, 2EC, 2ED, 2EE, 2EF, 2EG, 2EH, 2EI, 2EJ, 2EK, 2EL, 2EM, 2EN, 2EO, 2EP, 2EQ, 2ER, 2ES, 2ET, 2EU, 2EV, 2EW, 2EX, 2EY, 2EZ, 2FA, 2FB, 2FC, 2FD, 2FE, 2FF, 2FG, 2FH, 2FI, 2FJ, 2FK, 2FL, 2FM, 2FN, 2FO, 2FP, 2FQ, 2FR, 2FS, 2FT, 2FU, 2FV, 2FW, 2FX, 2FY, 2FZ, 2GA, 2GB, 2GC, 2GD, 2GE, 2GF, 2GG, 2GH, 2GI, 2GJ, 2GK, 2GL, 2GM, 2GN, 2GO, 2GP, 2GQ, 2GR, 2GS, 2GT, 2GU, 2GV, 2GW, 2GX, 2GY, 2GZ, 2HA, 2HB, 2HC, 2HD, 2HE, 2HF, 2HG, 2HH, 2HI, 2HJ, 2HK, 2HL, 2HM, 2HN, 2HO, 2HP, 2HQ, 2HR, 2HS, 2HT, 2HU, 2HV, 2HW, 2HX, 2HY, 2HZ, 2IA, 2IB, 2IC, 2ID, 2IE, 2IF, 2IG, 2IH, 2II, 2IJ, 2IK, 2IL, 2IM, 2IN, 2IO, 2IP, 2IQ, 2IR, 2IS, 2IT, 2IU, 2IV, 2IW, 2IX, 2IY, 2IZ, 2JA, 2JB, 2JC, 2JD, 2JE, 2JF, 2JG, 2JH, 2JI, 2JJ, 2JK, 2JL, 2JM, 2JN, 2JO, 2JP, 2JQ, 2JR, 2JS, 2JT, 2JU, 2JV, 2JW, 2JX, 2JY, 2JZ, 2KA, 2KB, 2KC, 2KD, 2KE, 2KF, 2KG, 2KH, 2KI, 2KJ, 2KK, 2KL, 2KM, 2KN, 2KO, 2KP, 2KQ, 2KR, 2KS, 2KT, 2KU, 2KV, 2KW, 2KX, 2KY, 2KZ, 2LA, 2LB, 2LC, 2LD, 2LE, 2LF, 2LG, 2LH, 2LI, 2LJ, 2LK, 2LL, 2LM, 2LN, 2LO, 2LP, 2LQ, 2LR, 2LS, 2LT, 2LU, 2LV, 2LW, 2LX, 2LY, 2LZ, 2MA, 2MB, 2MC, 2MD, 2ME, 2MF, 2MG, 2MH, 2MI, 2MJ, 2MK, 2ML, 2MM, 2MN, 2MO, 2MP, 2MQ, 2MR, 2MS, 2MT, 2MU, 2MV, 2MW, 2MX, 2MY, 2MZ, 2NA, 2NB, 2NC, 2ND, 2NE, 2NF, 2NG, 2NH, 2NI, 2NJ, 2NK, 2NL, 2NM, 2NN, 2NO, 2NP, 2NQ, 2NR, 2NS, 2NT, 2NU, 2NV, 2NW, 2NX, 2NY, 2NZ, 2OA, 2OB, 2OC, 2OD, 2OE, 2OF, 2OG, 2OH, 2OI, 2OJ, 2OK, 2OL, 2OM, 2ON, 2OO, 2OP, 2OQ, 2OR, 2OS, 2OT, 2OU, 2OV, 2OW, 2OX, 2OY, 2OZ, 2PA, 2PB, 2PC, 2PD, 2PE, 2PF, 2PG, 2PH, 2PI, 2PJ, 2PK, 2PL, 2PM, 2PN, 2PO, 2PP, 2PQ, 2PR, 2PS, 2PT, 2PU, 2PV, 2PW, 2PX, 2PY, 2PZ, 2QA, 2QB, 2QC, 2QD, 2QE, 2QF, 2QG, 2QH, 2QI, 2QJ, 2QK, 2QL, 2QM, 2QN, 2QO, 2QP, 2QQ, 2QR, 2QS, 2QT, 2QU, 2QV, 2QW, 2QX, 2QY, 2QZ, 2RA, 2RB, 2RC, 2RD, 2RE, 2RF, 2RG, 2RH, 2RI, 2RJ, 2RK, 2RL, 2RM, 2RN, 2RO, 2RP, 2RQ, 2RR, 2RS, 2RT, 2RU, 2RV, 2RW, 2RX, 2RY, 2RZ, 2SA, 2SB, 2SC, 2SD, 2SE, 2SF, 2SG, 2SH, 2SI, 2SJ, 2SK, 2SL, 2SM, 2SN, 2SO, 2SP, 2SQ, 2SR, 2SS, 2ST, 2SU, 2SV, 2SW, 2SX, 2SY, 2SZ, 2TA, 2TB, 2TC, 2TD, 2TE, 2TF, 2TG, 2TH, 2TI, 2TJ, 2TK, 2TL, 2TM, 2TN, 2TO, 2TP, 2TQ, 2TR, 2TS, 2TT, 2TU, 2TV, 2TW, 2TX, 2TY, 2TZ, 2UA, 2UB, 2UC, 2UD, 2UE, 2UF, 2UG, 2UH, 2UI, 2UJ, 2UK, 2UL, 2UM, 2UN, 2UO, 2UP, 2UQ, 2UR, 2US, 2UT, 2UU, 2UV, 2UW, 2UX, 2UY, 2UZ, 2VA, 2VB, 2VC, 2VD, 2VE, 2VF, 2VG, 2VH, 2VI, 2VJ, 2VK, 2VL, 2VM, 2VN, 2VO, 2VP, 2VQ, 2VR, 2VS, 2VT, 2VU, 2VV, 2VW, 2VX, 2VY, 2VZ, 2WA, 2WB, 2WC, 2WD, 2WE, 2WF, 2WG, 2WH, 2WI, 2WJ, 2WK, 2WL, 2WM, 2WN, 2WO, 2WP, 2WQ, 2WR, 2WS, 2WT, 2WU, 2WV, 2WW, 2WX, 2WY, 2WZ, 2XA, 2XB, 2XC, 2XD, 2XE, 2XF, 2XG, 2XH, 2XI, 2XJ, 2XK, 2XL, 2XM, 2XN, 2XO, 2XP, 2XQ, 2XR, 2XS, 2XT, 2XU, 2XV, 2XW, 2XX, 2XY, 2XZ, 2YA, 2YB, 2YC, 2YD, 2YE, 2YF, 2YG, 2YH, 2YI, 2YJ, 2YK, 2YL, 2YM, 2YN, 2YO, 2YP, 2YQ, 2YR, 2YS, 2YT, 2YU, 2YV, 2YW, 2YX, 2YY, 2YZ, 2ZA, 2ZB, 2ZC, 2ZD, 2ZE, 2ZF, 2ZG, 2ZH, 2ZI, 2ZJ, 2ZK, 2ZL, 2ZM, 2ZN, 2ZO, 2ZP, 2ZQ, 2ZR, 2ZS, 2ZT, 2ZU, 2ZV, 2ZW, 2ZX, 2ZY, 2ZZ, 2AA, 2AB, 2AC, 2AD, 2AE, 2AF, 2AG, 2AH, 2AI, 2AJ, 2AK, 2AL, 2AM, 2AN, 2AO, 2AP, 2AQ, 2AR, 2AS, 2AT, 2AU, 2AV, 2AW, 2AX, 2AY, 2AZ, 2BA, 2BB, 2BC, 2BD, 2BE, 2BF, 2BG, 2BH, 2BI, 2BJ, 2BK, 2BL, 2BM, 2BN, 2BO, 2BP, 2BQ, 2BR, 2BS, 2BT, 2BU, 2BV, 2BW, 2BX, 2BY, 2BZ, 2CA, 2CB, 2CC, 2CD, 2CE, 2CF, 2CG, 2CH, 2CI, 2CJ, 2CK, 2CL, 2CM, 2CN, 2CO, 2CP, 2CQ, 2CR, 2CS, 2CT, 2CU, 2CV, 2CW, 2CX, 2CY, 2CZ, 2DA, 2DB, 2DC, 2DD, 2DE, 2DF, 2DG, 2DH, 2DI, 2DJ, 2DK, 2DL, 2DM, 2DN, 2DO, 2DP, 2DQ, 2DR, 2DS, 2DT, 2DU, 2DV, 2DW, 2DX, 2DY, 2DZ, 2EA, 2EB, 2EC, 2ED, 2EE, 2EF, 2EG, 2EH, 2EI, 2EJ, 2EK, 2EL, 2EM, 2EN, 2EO, 2EP, 2EQ, 2ER, 2ES, 2ET, 2EU, 2EV, 2EW, 2EX, 2EY, 2EZ, 2FA, 2FB, 2FC, 2FD, 2FE, 2FF, 2FG, 2FH, 2FI, 2FJ, 2FK, 2FL, 2FM, 2FN, 2FO, 2FP, 2FQ, 2FR, 2FS, 2FT, 2FU, 2FV, 2FW, 2FX, 2FY, 2FZ, 2GA, 2GB, 2GC, 2GD, 2GE, 2GF, 2GG, 2GH, 2GI, 2GJ, 2GK, 2GL, 2GM, 2GN, 2GO, 2GP, 2GQ, 2GR, 2GS, 2GT, 2GU, 2GV, 2GW, 2GX, 2GY, 2GZ, 2HA, 2HB, 2HC, 2HD, 2HE, 2HF, 2HG, 2HH, 2HI, 2HJ, 2HK, 2HL, 2HM, 2HN, 2HO, 2HP, 2HQ, 2HR, 2HS, 2HT, 2HU, 2HV, 2HW, 2HX, 2HY, 2HZ, 2IA, 2IB, 2IC, 2ID, 2IE, 2IF, 2IG, 2IH, 2II, 2IJ, 2IK, 2IL, 2IM, 2IN, 2IO, 2IP, 2IQ, 2IR, 2IS, 2IT, 2IU, 2IV, 2IW, 2IX, 2IY, 2IZ, 2JA, 2JB, 2JC, 2JD, 2JE, 2JF, 2JG, 2JH, 2JI, 2JJ, 2JK, 2JL, 2JM, 2JN, 2JO, 2JP, 2JQ, 2JR, 2JS, 2JT, 2JU, 2JV, 2JW, 2JX, 2JY, 2JZ, 2KA, 2KB, 2KC, 2KD, 2KE, 2KF, 2KG, 2KH, 2KI, 2KJ, 2KK, 2KL, 2KM, 2KN, 2KO, 2KP, 2KQ, 2KR, 2KS, 2KT, 2KU, 2KV, 2KW, 2KX, 2KY, 2KZ, 2LA, 2LB, 2LC, 2LD, 2LE, 2LF, 2LG, 2LH, 2LI, 2LJ, 2LK, 2LL, 2LM, 2LN, 2LO, 2LP, 2LQ, 2LR, 2LS, 2LT, 2LU, 2LV, 2LW, 2LX, 2LY, 2LZ, 2MA, 2MB, 2MC, 2MD, 2ME, 2MF, 2MG, 2MH, 2MI, 2MJ, 2MK, 2ML, 2MM, 2MN, 2MO, 2MP, 2MQ, 2MR, 2MS, 2MT, 2MU, 2MV, 2MW, 2MX, 2MY, 2MZ, 2NA, 2NB, 2NC, 2ND, 2NE, 2NF, 2NG, 2NH, 2NI, 2NJ, 2NK, 2NL, 2NM, 2NN, 2NO, 2NP, 2NQ, 2NR, 2NS, 2NT, 2NU, 2NV, 2NW, 2NX, 2NY, 2NZ, 2OA, 2OB, 2OC, 2OD, 2OE, 2OF, 2OG, 2OH, 2OI, 2OJ, 2OK, 2OL, 2OM, 2ON, 2OO, 2OP, 2OQ, 2OR, 2OS, 2OT, 2OU, 2OV, 2OW, 2OX, 2OY, 2OZ, 2PA, 2PB, 2PC, 2PD, 2PE, 2PF, 2PG, 2PH, 2PI, 2PJ, 2PK, 2PL, 2PM, 2PN, 2PO, 2PP, 2PQ, 2PR, 2PS, 2PT, 2PU, 2PV, 2PW, 2PX, 2PY, 2PZ, 2QA, 2QB, 2QC, 2QD, 2QE, 2QF, 2QG, 2QH, 2QI, 2QJ, 2QK, 2QL, 2QM, 2QN, 2QO, 2QP, 2QQ, 2QR, 2QS, 2QT, 2QU, 2QV, 2QW, 2QX, 2QY, 2QZ, 2RA, 2RB, 2RC, 2RD, 2RE, 2RF, 2RG, 2RH, 2RI, 2RJ, 2RK, 2RL, 2RM, 2RN, 2RO, 2RP, 2RQ, 2RR, 2RS, 2RT, 2RU, 2RV, 2RW, 2RX, 2RY, 2RZ, 2SA, 2SB, 2SC, 2SD, 2SE, 2SF, 2SG, 2SH, 2SI, 2SJ, 2SK, 2SL, 2SM, 2SN, 2SO, 2SP, 2SQ, 2SR, 2SS, 2ST, 2SU, 2SV, 2SW, 2SX, 2SY, 2SZ, 2TA, 2TB, 2TC, 2TD, 2TE, 2TF, 2TG, 2TH, 2TI, 2TJ, 2TK, 2TL, 2TM, 2TN, 2TO, 2TP, 2TQ, 2TR, 2TS, 2TT, 2TU, 2TV, 2TW, 2TX, 2TY, 2TZ, 2UA, 2UB, 2UC, 2UD, 2UE, 2UF, 2UG, 2UH, 2UI, 2UJ, 2UK, 2UL, 2UM, 2UN, 2UO, 2UP, 2UQ, 2UR, 2US, 2UT, 2UU, 2UV, 2UW, 2UX, 2UY, 2UZ, 2VA, 2VB, 2VC, 2VD, 2VE, 2VF, 2VG, 2VH, 2VI, 2VJ, 2VK, 2VL, 2VM, 2VN, 2VO, 2VP, 2VQ, 2VR, 2VS, 2VT, 2VU, 2VV, 2VW, 2VX, 2VY, 2VZ, 2WA, 2WB, 2WC, 2WD, 2WE, 2WF, 2WG, 2WH, 2WI, 2WJ, 2WK, 2WL, 2WM, 2WN, 2WO, 2WP, 2WQ, 2WR, 2WS, 2WT, 2WU, 2WV, 2WW, 2WX, 2WY, 2WZ, 2XA, 2XB, 2XC, 2XD, 2XE, 2XF, 2XG, 2XH, 2XI, 2XJ, 2XK, 2XL, 2XM, 2XN, 2XO, 2XP, 2XQ, 2XR, 2XS, 2XT, 2XU, 2XV, 2XW, 2XX, 2XY, 2XZ, 2YA, 2YB, 2YC, 2YD, 2YE, 2YF, 2YG, 2YH, 2YI, 2YJ, 2YK, 2YL, 2YM, 2YN, 2YO, 2YP, 2YQ, 2YR, 2YS, 2YT, 2YU, 2YV, 2YW, 2YX, 2YY, 2YZ, 2ZA, 2ZB, 2ZC, 2ZD, 2ZE, 2ZF, 2ZG, 2ZH, 2ZI, 2ZJ, 2ZK, 2ZL, 2ZM, 2ZN, 2ZO, 2ZP, 2ZQ, 2ZR, 2ZS, 2ZT, 2ZU, 2ZV, 2ZW, 2ZX, 2ZY, 2ZZ, 2AA, 2AB, 2AC, 2AD, 2AE, 2AF, 2AG, 2AH, 2AI, 2AJ, 2AK, 2AL, 2AM, 2AN, 2AO, 2AP, 2AQ, 2AR, 2AS, 2AT, 2AU, 2AV, 2AW, 2AX, 2AY, 2AZ, 2BA, 2BB, 2BC, 2BD, 2BE, 2BF, 2BG, 2BH, 2BI, 2BJ, 2BK, 2BL, 2BM, 2BN, 2BO, 2BP, 2BQ, 2BR, 2BS, 2BT, 2BU, 2BV, 2BW, 2BX, 2BY, 2BZ, 2CA, 2CB, 2CC, 2CD, 2CE, 2CF, 2CG, 2CH, 2CI, 2CJ, 2CK, 2CL, 2CM, 2CN, 2CO, 2CP, 2CQ, 2CR, 2CS, 2CT, 2CU, 2CV, 2CW, 2CX, 2CY, 2CZ, 2DA, 2DB, 2DC, 2DD, 2DE, 2DF, 2DG, 2DH, 2DI, 2DJ, 2DK, 2DL, 2DM, 2DN, 2DO, 2DP,

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1371-8	200 - 220 - 230 - 240	500 - 600 - 750 - 850 - 1000	300	—
1400-19	200 - 220 - 230 - 240	565 - 500 - 425	250	2 x 6.3v.-3A.; 2 x 2.5v.-3A.; 5v.-3A.
1643-23	230	—	—	6.3v. TAP 5v.-2A. (500v. insul.)
1525-24	200 - 230 - 240	—	—	2.5v.-10A. (1000v. insul.)
1305-22	200 - 220 - 230 - 240	—	—	2.5v.-10A. (3000v. insul.)

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967-1A	35	20	150	200	1000
956-1A	30	20	200	160	1000
1011-1A	30	15	250	160	1000
*983-1A	25	20/5	30/300	90	1000
986-1A	15	10	300	60	1000

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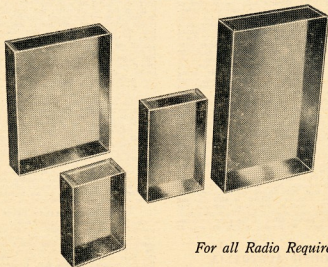
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chatter and hope that he will be back on the air soon. Ted SJZ has really been on the ball lately and the Club has seen him more in the last couple of weeks than ever before, which is all to the good as more interest is shown by the members in the Club means more good work for its continuance. Ray Farmer is another who has been fairly quiet this month, but rumour has it that it may be for an ulterior motive, to wit, the "Farmer Special", which is all the more a real faithful because it is reported to have towed the Ark to the water's edge. Ray has ideas of using the car later in the year for a little mobile experimenting, and it should be a real faithful. The letter Max has never given him a moment's trouble on the road as yet, mainly because it has not got that far.

Len SOD still remains the most consistent operator of SWC, but he was given leave by the boys to go to the big smoke recently on the pretext of the XYL, but the real reason was to pick up the beam motor. To think that such duplicity should thrive in such desert country, Included in the letter Max was a QSL card from VK1EG addressed to EPS care of SWC, and now they want to bill me up for a year's subscription. Listen fellows, you have heard of getting blood off a stone! Well, I am aneem—aneem—aneem—well, anyway you haven't got a hopel!

It also received a short note from Frank SMZ who tells me he is home from the hospital now, but is still feeling the effects of the accident. He is making good progress, however, and although it looks like being a long job, he finds that listening on the bands has been a great help. The extent of his injuries were right leg broken, both bones between the ankle and knee, eleven ribs broken on the right side, 32 stitches and plastic surgery on his scalp, left ankle bruised and chipped, bone, severe shock and lacerations, and his right arm affected in-as-much as he has lost his grip and finds it difficult to write for too long. Well, all I can say is that these Bentleys are tough guys and I wish that I had half his spirit. Joe SVO and Charlie SON have been a tower of strength to Frank and his XYL, paying several visits to the hospital and making it possible for him to listen in on the Amateur bands by fixing up his rx after it had gone on the blink. There you are fellows, that's the "gen" on Frank, and don't forget that although he is not on 40 mx as yet, he will be listening a good deal.

It is my custom as soon as I receive the magazine to turn first to the Federal page and read the words of wisdom contained therein. Aside from a "Vive Barbier" and a couple of other small insults that have greeted my eye now and again, I find myself quite pleased and satisfied with literary style and news value submitted by the scribe or scribes concerned. "That's quite alright, credit where credit is due." Ho hum. However, and it is a big however, my faith in the page received a rude shock when my eye lighted upon the statement in the June copy that television would probably come to the two major cities, Melbourne and Sydney, first, or words to that effect. Major cities, wouldn't it, how would you be? After reading that overstatement I ran around for fellows that were wise as a whip. The fellows, were you serious in the remark—you were?—well where was Pincott, where was Higginbotham? Don't me, I know, urging you on if the truth is only known. Compliment Committee! The Greeks have another name for it and it doesn't start with a C.

The news of the passing of Hal SAW came as a shock to a great many of the Amateurs throughout VK and the letters and telegrams

of sympathy came from all parts of VK. Unfortunately a number did not put their call signs on the cards, etc., and Mrs. Austin is finding it hard to recognise all the names of those who extended the gesture of sympathy to her. Whilst most of them have been sorted out by close friends of Hal, there will naturally be a few who will remain unknown. To these good people may I pass on the grateful thanks of Mrs. Austin, who assures me that the expressions of sympathy did much to help her over a trying period.

UPPER MURRAY AREAS

The July meeting of the Upper Murray gang was held at the domicile of Tom STL and took the form of a discussion around the fire, a good idea on nights like those that we have been experiencing in the last two months. In fact, I think that I will try my hand at lighting a fire in the middle of the clubhouse at our next meeting. I don't think that anybody will object especially if I show them how to start the fire using two bits of wood instead of matches. It was one of the first things that they taught me when I joined the girl guides. I learnt several other tricks as well, but let's keep the Upper Murray notes select and also remember that Mr. Pincott is with us. Three hearty huzzas and hoots.

SCF at last managed to get on the air and Murray was just nicely set to work with Fred SMA when the power went off and stayed off for about seven hours. Perhaps he has heard about Alfred and the spider, or was it Bruce and the ocean. Oh no, I am sorry, of course it was Canute and the cakes. Anyway Murray's little watermelons will grow again. Or should it be bananas? EXO has had a period of inactivity due to being a victim of the 'flu and all hope that Alec is now fit and well again. SBC has been heard on 3.5 Mc, with a power of 5w, but I believe that Hughie is only using this band as a means of making his own arrangements for his contacts on 14 Mc. Apparently the gang are moving to this band in force judging by the call signs heard there lately. STL is rather one who has been frequently 3.5 Mc, and reports hearing SBC, 3RR, 3AP, SPM, SLD and SMA. Tom thinks that this looks good for the coming R.D. Contest, but I can only say "time will tell."

SMA has been heard at odd times on various bands Fred manages to get his share of activity in each month. SRE has little to report and besides a little activity on the air combined with his visits to the Bush, he is leading his usual calm and sedate progress along the sea of life. SKW has joined the ranks of the 3.5 Mc. and although Harry is keeping a wary eye on B.C. in case it rears its ugly head, believe it or not, a certain Amateur in this area has acquired another motor bike. I am not sure if it is to be related to the fact that the Amateur as yet, but the bike will automatically be known as "Rattling Salvation II." Shush, not a word to Eassey!

I suppose in every State of the Commonwealth there are the odd one or two Hams who won't have a bar of the W.I.A. and at times go out of their way to rub salt in the wound and off it. I can understand the genuine groucher who thinks that he has a case against the institute and won't join up because of it. I can understand the feelings of the odd one who at some time or other has had a bit of a dog-fight, perhaps with Council or with an individual member, and because of this won't join up, but the chap that I can't understand is the one who carries a chip on his shoulder for years and years, and because of this won't join up, but launches off into a large scale attack on Council, the members, etc., all based upon a rumour. I have heard one of this ilk on the air the other day and he has been found a new technique of rubbishing the W.I.A. He would contact a station, and as soon as the formalities were over and done with, he would ask the station for his QTH "because he wanted to check it against the new W.I.A. Call Book as he had found quite a number of mistakes in it, and he wanted an up-to-date call sign book not an apology for one!" Wouldn't it! When will these characters grow up? If they would only realise that in trying to rubbish the W.I.A. they are only rubbishing themselves. I don't think for one second that the W.I.A. is the perfect answer to the Radio Amateur's prayer, but this I do know, it is as near perfect as it is possible to get under the set-up in VK, and all those who are happy in knocking it so hard at times would be keeping stamps, or pressing butterfly wings for a hobby if it was not for the W.I.A.

SOUTH EAST AREAS

STW has had a quiet month, but if my information is correct, Tom is getting himself all set for a flying start in the coming R.D. Contest. SCH is making a Q-Q'er for his BC34S and is also making good progress with his new shack. When will we be seeing you again Claude? SFD has nothing to report for his month although John is also getting ready for the R.D. Contest. SJA still refuses to break his self imposed silence and won't write for news of John in the R.D. Contest. If he does not bob up for this I will have to give him my way. SKU is well settled in his new shack and Erg is managing to work an occasional new one. I suppose that in a couple of months he will be considering his other hobby of gliding and then radio will be taking a back seat. SMS has cleared up all of his little troubles and is ready for all contests. Stuart should be first favourite for the R.D. Contest, going on his past performances. SCJ is gradually getting all of his radio gear into its rightful place in his new home and even his XYL is on his side now, as she has informed Col. that the wire, poles, etc., are cluttering up the yard. How lucky can you be!

In closing these monthly notes for September it is extremely embarrassing for me to keep putting off the really reading about his past talent that exists in VK5, but did you read

Best Technical Article

Some time back, VK5JD donated £1 for the best technical article received for inclusion in "Amateur Radio," over a period of six months.

It was later decided to extend the period until the 30th June, 1954, to enable a greater number of articles to be eligible for the award.

The Magazine Committee have decided that the prize be jointly awarded for an article by E. Cornelius (VK6EC) on "Amateur Television" and "The Complete Amateur" by T. Athey.

The Victorian Council have made available an additional £1 and both these gentlemen will receive their prizes in the next few weeks.

Our congratulations go to both members on their informative articles.

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the Editorial by our President in last month's magazine? Not and eh? I didn't think that he had it in him. I asked Gordon if he was related to the clergyman who was walking down the aisle and tripped over his surplice, but he assured me that he was not. Apparently no one at the church organ has taught him a thing or two. Nice work Shylock, I lift my easock to you.

—

WESTERN AUSTRALIA

At the July meeting of the Institute, members were entertained by Mal Murray, GMY, with a lecture on "Welding and Electrical Engineering Welding." Mal produced quite a few samples of the three main types of welding—metallic arc, inert arc and resistance arc—and his talk aroused quite a deal of interest in the finer points of the art. The film "Gateway to the Heavens" followed, this covering the development of astronomy from the discovery of the telescope to modern times. Walley Coxon, GAG, concluded the evening with a short talk, "Pages from the Past"; a few anecdotes of Radio in W.A. in the days of "King Spark." He recalled the objection raised when a license was issued to a radio amateur in the days of an Amateur Station license. It doesn't appear that the objection was too successful—although at the time it was apparently well founded, as the time was not fit for a commercial station license was only 5-1.

The combined Annual Dinner of the Institute and the Southern W.A. was held at the "Marrelli" in Hay Street on 23rd July. Although attendance was poor compared with previous years those who were there voted it a "good show" and would be looking forward to the next. The Committee had organised a number of prizes and questions and the evening was moving—one of which was to guess the number of matches in a box by the rattle when same was shaken. The correct answer of one would have won a little reward but the box had not been filled with small broken pieces of matchstick!

It is thought that the new Federal Contest Committee is "on the ball" this year with their clarification of Rule 3 of the R.D. Contest in amateur categories and their decision to give a sign for contest purposes. This had been a bone of contention for some time and has certainly resulted in bad feeling in certain quarters. Good work!

The proposal to provide an emergency network of Amateur Stations on yachts taking part in the 1976-77 Tasman Sea Challenge Race does not seem to have attracted many—or any takers. The gear is there for the lending, but the boats are not. The sea is not too bad for the very good sailors! Remember if you're interested, RU, 60R or GAG are the sub-committees.

Well, the R.D. Contest has come and gone for another year, although of course as I write these notes there is still some few days to go before the event comes off. Naturally we all hope that VK6 has carried the day again, and if not it certainly won't be through want of trying! But I'm not going to resort to crystal ball stuff at this stage. May the best State win!

An item of importance which should be mentioned, although somewhat belatedly, is the membership of the R.D. Contest in the Birthday Honours List. Jack was awarded an M.B.E. for his fine record of service in the Army.

EAP has been giving the locals a check on their 7 Mc. transmissions per the medium of a tape recorder which helps in the minor adjustments if this facility is available. One of the inactive types, Ted 6TP, did a good job on the 14th Dip. Dinner. The 14th Dip. Dinner Birthday Honours List. Jack was awarded an M.B.E. for his fine record of service in the Army. EAP has been giving the locals a check on their 7 Mc. transmissions per the medium of a tape recorder which helps in the minor adjustments if this facility is available. One of the inactive types, Ted 6TP, did a good job on the 14th Dip. Dinner. The 14th Dip. Dinner Birthday Honours List. Jack was awarded an M.B.E. for his fine record of service in the Army.

ERL confronted with colossal signal. Knocked a 3L or two in fine style then disappeared. To that your second 80 mc x-c, QSO post-war and colleagues. The 14th Dip. Dinner Birthday Honours List. Jack was awarded an M.B.E. for his fine record of service in the Army. EAP has been giving the locals a check on their 7 Mc. transmissions per the medium of a tape recorder which helps in the minor adjustments if this facility is available. One of the inactive types, Ted 6TP, did a good job on the 14th Dip. Dinner. The 14th Dip. Dinner Birthday Honours List. Jack was awarded an M.B.E. for his fine record of service in the Army.

230v, home generated DC and 80v, at 400 cycles AC are all called on to power the rig. But in spite of these limitations Basil manages 90 or so watts on most bands. I believe the view of the loss of his 100 watt ensues only a week or so up landward 40 miles away, so maybe that's some compensation. Another with what could be a sticky power problem is 6MO, of Watheroo. He has a 100 watt home generated AC, but the authorities at the Magnetic Observatory did not supply rotary inverters. Associate Wally, GZA, has his 100 watt AC, but the tx has been given signals, but the tx has been giving trouble. I think a job re crystallisation is under way there. Wally has been working for a month. Still haven't received any gen from anybody for insertion, so apparently nothing happens here in the West.

TASMANIA

The July meeting, which was held at the Club Rooms, was one of the best attended for many months. Hardly a chair was vacant and a number of faces which had been in hiding for some time were shining brightly in the back row—notably that of TDI, nice to see you at meetings again! Dave, I don't think there is any doubt that the good attendances recently are due mainly to the excellent lectures that are being arranged by the lecture committee.

On this occasion an illustrated talk was given by Mr. George Hale, of the Tasmanian Museum Geology Section, the subject being the detection of radioactive elements by means of a Geiger counter. Hale proved himself to be thoroughly conversant with his subject and it was not until 10 p.m. that the time for the human eye to see the exhibits inspected. Actually, I have my own theories on this mineral detection business. Since gamma rays are not visible to the human eye, magnetic radiations, they could be detected by a receiver using the superhet principle. The line-up may be as follows: The Gamma rays would be mixed in the first converter with x-rays where they would be converted to light rays. The I.F. channel would consist of a telescope and the detector of the human eye. It would therefore only be necessary to place the I.F. channel to the eye to detect the radio-active minerals.

Of course some chaps may wish to go one better by using double conversion. In the 2nd mixer the light rays would be converted to radio waves by mixing with infra-red rays, and by using the ordinary Amateur rx to detect the radio waves in the normal way. The source of infra-red rays would be a small lamp, such as a hot water bottle, Indian curry or one of TMI's jokes, but now I'm getting facetious. I intend to try out this gadget and if I can't, TMY, as he reports hearing the same noise that comes from a very excited Geiger counter on his ARB, I shall know there's something in this scientific business.

The August meeting was held at the University Lecture Room, Sandy Bay, and after a brief half hour of business, the meeting was addressed by VKM, Ken McCracken, who deputised for Dr. A. C. Fenton, of the Cosmic Ray Laboratory. Dr. Fenton was unfortunately not able to attend, but Ken made an excellent job of explaining the whys and wherefores of cosmic rays, and the importance of the work of the subject, the gathering moved to the Cosmic Ray Laboratory nearby, where the practical aspects of the work were discussed. The evening was perhaps the most interesting of any so far—it was to me anyway, and I thoroughly enjoyed it. Supper was served by courtesy of the University.

An attempt will be made to get the new TWI tx and shack completed for the R.D. Contest, and by the time the time for the contest should be a going concern. TAL and TPI made a survey of the aerial position and reported favourably, recommending two masts on the roof with feeders coming down the light well to the shack.

Guest lecturer from N.W. recently on a visit to Hobart from the T.W. Coast—glad to meet you Sam, if only per phone. Chas TCF also a Hobart visitor. The 14th Dip. Dinner, how did the new Vanguard go on. Chas? Ian VKB reported buying enough gear for a small 80 v. rig. I sort of hoped and worried that the rig would be ready for the 14th RBL building the rig into a steel cabinet—why hide all that beautiful work Keith? TAF may have a 100 watt rig under construction, but it's fixed. That's all for now; back to the rathouse.

NORTHERN ZONE

TRE has been heard on again lately now that the house is completed. TXW has been doing some building in the 144 Mc. and 50 Mc. sphere and the time has come when the time has come for his hidden tx jaunts. TLZ lately decided on a more elaborate pole to complete his antenna system, and he has been working on it, safely allowing our winter elements. TPI has been just in passing these days as building has all

hitherto, but a 144 Mc. antenna is pointed mainland-wards, though, from his new QTH, TBYQ is still wrestling with crystal converts. TTE has purchased a new coil kit for the super rx and has about 1000 hours of work now arrives in once again from the North-West Coast—good to hear you Ted.

TFM had the police down to Kelsa a few weeks ago looking for a missing 144 Mc. rig, antenna. His fellow work associate, TPI, did not know anything about it, but has his vee beam up in a new QTH, right on the waterfront. His mail now, however, it has not arrived in a private bag! TGM is re-building still, and the locals are listening till he breaks the ether. TRK, our DX man, has forsaken the key for the key board and plays a merry tune at some of the local balls. As President recently, he has gained a lot of experience in the local classes of the local Technical College. So I'll not tickle him here! Les Hodekison is waiting for the results of his "Limited" to arrive—he's hoping.

HAMADS

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